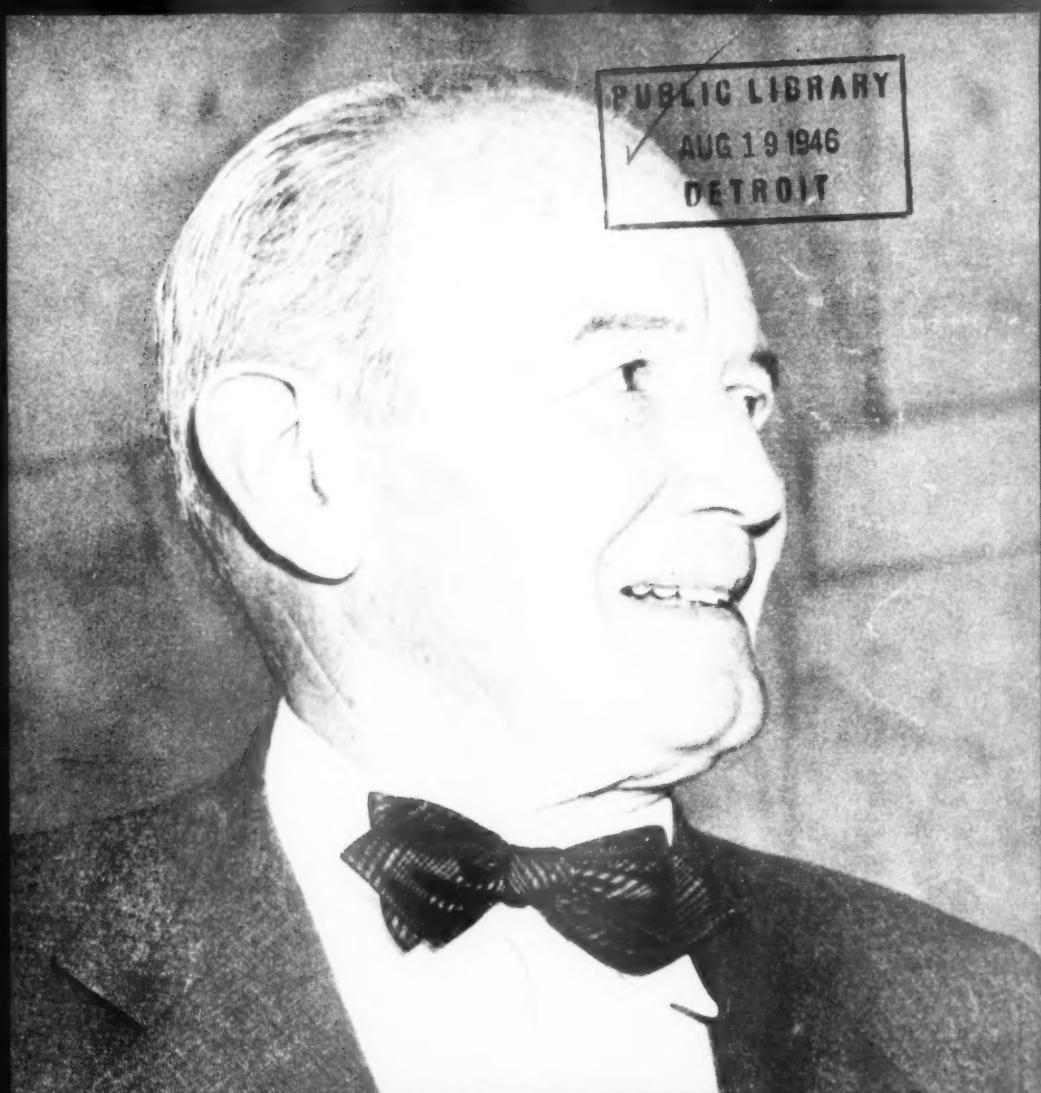


BUSINESS WEEK

AUG. 17, 1946



OPA Decontroller George H. Mead: A businessman facing an important decision for business (page 8)

BUSINESS
WEEK
INDEX

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The only way wages can be raised

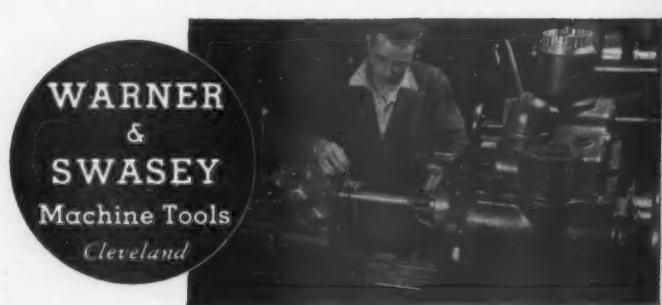
350 workmen, at a comfortable working rate, assemble 1000 vacuum cleaners in one day. Their wages are \$3500. That's \$3.50 per cleaner (of course, there are many other costs for workmen making the parts, etc.)

If those men slow down, and assemble only 700 cleaners a day, the individual workman does *not get any more* but the cost per cleaner goes up to \$5.00. Either the price has to go up (then fewer cleaners will be sold, there will be fewer jobs) or the company will absorb the loss of \$1500 a day until it goes out of business and then there will be *no* jobs.

But, if these same 350 workmen increased their efficiency and assembled

1400 cleaners a day, the cost per cleaner could be only \$2.50. The saving to the company would be \$1.00 on every cleaner, which they could and would share with the workmen in higher wages and with the public in lower prices. Everybody would benefit, whereas, when production goes down, everybody suffers.

How would the same workmen produce more? Not by working harder nor longer but simply by better use of better mechanical equipment. Wise management will buy it, wise labor will encourage it, wise government will draft tax laws that make it possible. Because *there is no other way to raise wages*.



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Rubber stomachs for "pickling" steel

A typical example of B.F. Goodrich development in rubber

BEFORE sheet steel can be shaped into your car body or refrigerator, rust and scale must be cleaned off by hot acid. Steel men call it "pickling".

But how hold the hot acid? Wooden tanks were tried but the acid ate holes in them, and workmen were breathing acid fumes, even splashing through acid puddles on the floor. Tanks of brick and concrete were tried, but they developed leaks because of expansion and contraction.

B. F. Goodrich engineers went to work on the problem. They developed a rubber lining called Triflex for a

steel tank, using the steel for strength. They used the rubber in a sandwich—hard rubber for acid resistance, with soft rubber on both sides for protection. They even developed a special expansion joint so that the rubber would expand when the steel tank got hot, contract when it was cold, and so never break away. Between the rubber and the moving sheets they laid bricks for protection against tearing.

Acid leaks stopped whenever this B. F. Goodrich tank was used. The "pickling" room became a safe place to work; costly shutdowns for tank re-

pairs were a thing of the past; costs were reduced—all typical results of many B. F. Goodrich developments for industry. When the tank in the picture was installed, owners hoped it would last 4 years. It has already lasted 13, and seems as good as ever. Today there are 45 rubber-lined "pickling" lines in America—42 of them with this B. F. Goodrich "rubber stomach". *The B. F. Goodrich Company, Industrial Products Division, Akron, Ohio.*

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BUSINESS WEEK

Business Abroad	97
Finance	57
General News	15
The International Outlook	95
Labor	82
Marketing	46
The Markets	102
The Outlook	9
Production	66
The Trend	104
Washington Bulletin	5

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BUSINESS WEEK • Aug. 17, 1946

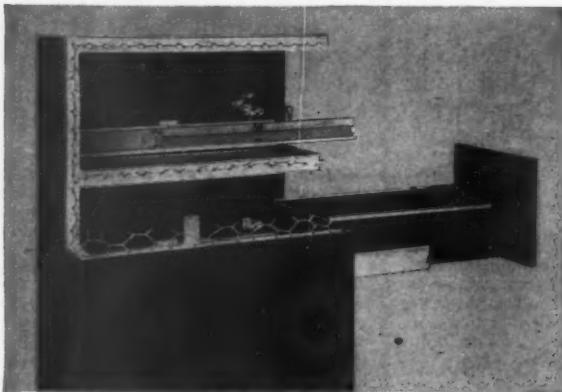


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WASHINGTON BULLETIN

TIME FOR DECISION

Informed Washington opinion at midweek was that, unless the Decontrol Board decides to demonstrate disregard for Administration pressure, meat, dairy products, and corn will go back under price ceilings after Aug. 20.

No one is taking this week's hearings too seriously. They have brought out no new facts, and the real raw material for the board's decision will be statistics and recommendations furnished by government agencies.

OPA makes no secret of its recommendation that all the foods be recontrolled except wheat and oats, which are more likely to stay free. Under White House pressure, the Agriculture Dept. is soft-pedaling its basic repugnance for ceilings. The National Wage Stabilization Board is warning that more pay boosts are inevitable if food prices go up.

Decision on poultry, eggs, tobacco, and oil is some weeks away. Although Congress contemplated an Aug. 20 decision on these also, the board quickly abandoned hope of doing more than handle the first group of products, which would be automatically recontrolled in the absence of a decision. The second group stays free until the board decides otherwise.

NWSB MEMBERS ON SPOT

The tripartite structure of the National Wage Stabilization Board, if not the board itself, is tottering because of increasing pressure from employers who were forced into granting wage increases and now want them approved as a basis for seeking price relief.

NWSB industry members, whose resignations are on President Truman's desk (BW—Aug. 10 '46, p7), are finding their task more and more distasteful. With most wage increases already in effect when an application for approval reaches the board, they are put in a position of either sanctioning the raise or denying the employer the right to seek price relief. Industry spokesmen see no need for tripartite handling of existing wage controls. They'd rather see the job done by an administrator.

Twice within a week the industry representatives on NWSB have joined hands with the labor members to approve wage raises already being paid despite the belief of the public's representatives that under the regulations this could not be used for price relief. In one case, involving a second-round increase in the West Coast lumber industry, OWMR Director John R. Steel-

man was able to veto the industry-labor majority on NWSB (page 82). This was because Steelman's O.K. is required on decisions involving "special circumstances."

In the most recent case, the United Traction Co. of Albany, N. Y., will be able to use a recent 8¢ wage increase in seeking a fare adjustment, although NWSB public members felt that the increase, added to a 5¢ increase of last November, exceeded an 8¢ postwar pattern for the industry in the area involved.

COTTON PROFITS CCC

A little drumbeating by southern congressmen probably would force the Commodity Credit Corp. to divide among cotton growers a windfall profit of about \$150,000,000.

Most of the profit has been realized on heavy sales at high prices of 1934 and 1937 cotton that was taken over by the CCC in satisfaction of loans to growers at loan rates ranging from 9¢ to 12¢ a lb.

CCC officials prize this profit highly, hope they can keep it, because it has put that agency in the black on its long-term farm price support operations, if subsidies authorized by Congress are excluded from the calculations.

The CCC does intend to distribute the profit realized when the books are closed on 1941-44 loan cotton, unredeemed by growers, that was pooled.

The government corporation also shows a profit on tobacco, naval stores, and imported fats and oils. This, plus the profit on the 1934 and 1937 cotton, more than offsets heavy wartime losses on potatoes, wheat, corn, hemp, and other commodities.

SURPLUS SALES SHIFT

The only chair that goes with the War Assets Administration desk is a sharp-horned dilemma. The dilemma is whether to treat war surplus as a pool of scarce and desirable goods to be parceled out to priority buyers, or to consider it as an economic threat which should be liquidated at high speed during the present inflationary period to prevent it from overhanging future markets.

Congress, solicitous particularly for veterans, has always stressed priorities in distribution. But the Executive Dept. —and Gen. Gregory, the last administrator—bore down hard on quick disposal.

Gen. Littlejohn, the new WAA boss, has shifted to the other horn. The rule now is everything for the veteran. Substantially all personal-use types of consumer goods—clothing, optical equipment, radio gear, etc.—will be reserved for veterans.

Exploring New Outlets

WAA is prepared to distribute goods fairly evenly around the country and is exploring various outlet systems—might set up government stores or might hire mail-order or chain distributors to handle the stuff. A simpler certification system will probably enable veterans to qualify for the purchase of any type of goods in one shot up to some fixed dollar limit.

Though the site sales program will go on, the drive is taken out of it by the new approach—since the essence of site sales was always to sell the goods wherever they might happen to be and not worry about the small fry who couldn't afford to go there.

An incidental result of the big ear for veterans' gripes is a revision of the electronic sales program, which has been a worry to WAA insiders for months (BW—May 25 '46, p5). Violating one of its basic rules in this case, WAA had turned over disposal to the original manufacturer—leading to endless complaints that the gear was being held off the market. Now heads have rolled in the electronics division and a new and less vulnerable program is being worked out.

FOUND: BUILDING LABOR

St. Louis builders and craft unions have found a way around the biggest technical obstacle to stretching out the labor force with shipyard workers, veterans, and others on whom housing theorists are counting to avert a shortage of construction labor. The difficulty is that the National Wage Adjustment Board refuses to recognize special pay scales for semiskilled workers.

Recently St. Louis unions and builders got together on an application to the board for recognition of subjourneyman classifications in the crafts. They were turned down—but were reminded that NWAB does recognize apprenticeship arrangements.

So St. Louis has set up a very loose five-year apprenticeship scheme, with wages graduated from 70¢ to full journeyman scale, no age limit, and provision for recognition of previous experience. A curbstone hammer and saw artist can be enrolled as, say, a fourth-



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WASHINGTON BULLETIN (Continued)

year apprentice—and no one worries much whether he ever graduates to the fifth-year scale.

IMPORT PRICING CLARIFIES

OPA lawyers think they've found an out from the box in which the price agency was put by the last minute clause (10-x) in the price extension bill. This section requires that prices of imported materials and their products reflect the world price of the material if a differential between domestic and world prices threatens to limit imports (BW—Aug. 10 '46, p5).

Big worry was that Sec. 10-x would require recognition of different prices for domestic and imported nonferrous metals, particularly copper, lead, and zinc—causing endless confusion in the pricing of metal products. Now the lawyers have convinced themselves that they can disregard 10-x in setting metal prices, on the ground that the RFC's government import and resale program insures adequate imports of the metals.

OPA Stands Firm on Hides

The situation in the hide-leather-shoe market—at which 10-x was actually aimed—is beginning to clarify. Originally the trade assumed that ceilings on all three would have to be removed because of the large number of imported hides used. Domestic hide producers anticipated a return of the high prices prevailing during the July price control hiatus, and hide movements practically stopped.

OPA has no idea of general decontrol action. It has granted a 30% increase in leathers from imported kid and goatskins and is working on a new cost-plus type of ceiling on shoes using such leathers. But it stands firm on domestic hides and claims some success in forcing out hoarded hides by inventory-policing action—although the trade still insists it's not getting hides.

DEMOCRATIC HOPES RISE

Defeat of veteran Sen. La Follette for the G.O.P. nomination in Wisconsin has raised high the hopes of Democratic Party leaders of winning a Senate seat in that state.

Confident that La Follette will not run as an independent candidate in November, they expect the remnant of the Progressive Party, which almost carried him to victory, to throw substantial support behind the Democratic nominee, former New Deal Congressman H. J. McMurray.

With this support, which the Democrats could not have got if La Follette had won the Republican nomination, party leaders plan to make one of their strongest Senate campaigns of the year. While they concede that the odds still favor the Republican candidate, Circuit Judge Joseph McCarthy, the Democrats believe they have the best chance of victory in years.

MASON ON COMPETITION

The Federal Trade Commission's ebullient Lowell B. Mason this week lashed out in dissent against a cease and desist order which he said writes "pricing by use" into administration of the Robinson-Patman Act.

The issue boils down to whether an integrated distributor is entitled to buy as a wholesaler or a retailer. In this instance Standard Oil Co. of Indiana has been ordered to reclassify four Detroit dealers as retailers on all gas they resell at retail, continuing jobber discounts only on that portion of their

volume which they dispose of to other retailers.

Widely applied, this principle would bar manufacturers from selling to big chains, department stores, and mail-order houses at jobber prices where the savings are used to cut retail prices to consumers in such manner as to cause "injury to competition."

Mason lambasts the FTC majority for doing what, in his opinion, amounts to prohibiting competition. He contends that testimony showing injury to competitors in this case is in reality a demonstration of the existence of competition.

LUNCH FOR ECONOMISTS

All the bureaucrats with an ax to grind regarding government economic policy are snuggling up to the new Council of Economic Advisers (BW—Aug. 3 '46, p7). Chief Adviser Edwin G. Nourse and his colleagues are in a curious position. Their real job is to watch for the signs of a depression and

Where to Turn When OPA Won't Listen

While Congress was on its neck, the OPA walked warily in its dealings with businessmen. The price extension bill hung in the balance and any businessman could take his grievance to a sympathetic congressman. With Congress gone, OPA has no legislative tribunal to worry about and is happily conscious of it. This is showing up in a strict and literal interpretation of the extension law—an interpretation that is uncovering a lot more price control in it than Congress probably intended.

• **Court of Appeals**—By and large, there's nothing much to prevent OPA's having its own way, but there's still one place where an industry—or a single businessman—can turn if he feels that OPA is pushing him around.

That's the almost forgotten Emergency Court of Appeals, set up by Congress in 1942 especially to handle OPA litigation. It is empowered to hear complaints that the price agency's interpretations of the law are unreasonable, arbitrary, or discriminatory as between companies or products. As might be expected the court's decisions run about 2 to 1 in favor of OPA. Its business is small, fewer than 100 cases a year.

An upsurge in appeals to the court has come with the revival of price control. Most of this results from old grievances held in abeyance when it looked as if price control might die and many other businessmen may be disposed to go to the mat with OPA over interpretation of many new features of the latest law.

• **Two Procedures**—Under the new law, an individual businessman may also go to the court to get the price ceiling taken off his product.

The law sets up two alternate lines of procedure for decontrol. An industry advisory committee may petition OPA to remove ceilings, and, if OPA turns it down, may appeal to the Decontrol Board.

The second line is an appeal by an individual or firm to the emergency court, protesting OPA's failure to remove the ceiling on its own initiative. A businessman can take this course even if his industry advisory board votes not to submit a decontrol petition.

There's even room here for simultaneous appeals on the same product—by the industry advisory committee to the Decontrol Board, and an individual businessman to the emergency court.



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—theoretically at least—to recommend measures to ward it off.

But meanwhile they have a central voice in the preparation of the annual report which the President is now required to submit on the state of the economy. This document, due next January, has become the focal point of the always-continuing struggle among Administration policy-makers.

Whatever prestige they may ultimately acquire, the advisers this year have far less positive influence on the basic lines of policy than such outfits as the Treasury, OWMR, OPA, the Federal Reserve. But as editors and compilers they have a considerable side-wise influence over the stress and organization of the report. So they're already being ardently wooed by the economic brains of all these agencies.

Add the fact that assembly of a staff for the advisers will provide a number of permanent jobs of a character to make any good economist's mouth water—and there's no reason why any of the three should have to buy his own lunch for a long time to come.

CAPITAL GAINS (AND LOSSES)

Truckers are groping for a policy on rules and rates for transportation of radioactive material. They don't know what to do about the radioactive isotopes now being shipped from Oak Ridge (by express, under a radium classification), and they fear they may be asked to haul a lot of Bikini gear which has residual radioactivity.

In response to a White House suggestion, Commerce Secretary Wallace has retained Trundle Engineering Co. of Cleveland to investigate the labor practices of the department's Inland Waterway's Corp.

—Business Week's
Washington Bureau

THE COVER

Industry, already becoming disillusioned about new pricing formulas of the Price Control Extension Bill, is pinning its hopes to the decontrol procedure. And the industrialist on the Decontrol Board—George H. Mead, 68-year-old president of paper-making Mead Corp.—is in a key spot (page 22). First important decision—on whether to remove controls on meat, dairy products, and grain—comes next week; after that, he and his colleagues will face the growing roster of industrial decontrol cases.

The Pictures—Press Assn.—Cover; Charles Phelps Cushing—20; Int. News—26, 82; Acme—97, 100; Harris & Ewing—36; Wide World—55; Army Air Forces—17; Kaiden-Kazanjian—62.

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THE OUTLOOK

BUSINESS WEEK
AUGUST 17, 1946



Another big manpower headache is in the making for employers.

Up to this time, the situation has been getting better, though it never has become really easy by prewar standards. But from now on, the labor market will be tighter. Employers will find it harder and harder to get—and keep—as many workers as they want.

The new labor squeeze won't make things as bad as they were during the war. Still, the general manpower situation—the hot competition for workers, the undermanned departments, the willingness to put up with marginal labor—will be strongly reminiscent of wartime.

The slack in the labor market, created by liquidation of the war program, is going fast.

This month's Census Bureau report shows that civilian employment hit 58,130,000 in July. Counting the armed forces (2,600,000), that gives a total of 60,730,000 jobs already.

The postwar labor force simply isn't big enough to furnish recruits for many more jobs.

Unemployment in July was down to 2,270,000. That looks like a lot in comparison with the 950,000 unemployed in July, 1945, but as a source of additional manpower it doesn't amount to much.

"Frictional unemployment" is bound to be higher when the economy is focusing on peacetime production. Workers change jobs more often. They have to hunt around more to find what they want.

In the desperate wartime labor shortage, loss of time between jobs dropped almost to the vanishing point. In the looser, easier-going peacetime economy, 2,000,000 unemployed probably would be pretty close to bedrock.

The armed forces will demobilize about 500,000 more men over the next six months. And some 720,000 veterans who are already out but not yet looking for work will feed back into the labor market.

These two increments, plus normal growth, will add around 1,500,000 workers to the labor force. But they are all that's in sight.

There's not much hope of making up a manpower deficit by coaxing women out of their kitchens and retired workers out of their rocking chairs the way we did during the war.

At the peak of wartime employment, there were 8,000,000 workers holding jobs who ordinarily would not have been in the labor force. Since then, only about 5,000,000 have gone back home. This means that there still are some 3,000,000 of these wartime recruits in the labor market.

Most of these 3,000,000 are in the very young or very old age brackets. The long-term trend is toward longer schooling and earlier retirement. As times goes on, the labor force is more likely to lose some of its extra workers than to gain more of them.

Demand for labor still is on the way up. Construction has a long way to go to make the housing goals. The hard goods industries are just getting into their postwar stride. Wartime labor deficits in consumer goods industries and services have not been made up entirely.

In the scuffle for manpower, the high-wage industries will win out, as

THE OUTLOOK (Continued)

BUSINESS WEEK
AUGUST 17, 1946

they usually do. The relatively low-paid and the dirty work will suffer.

In general, this means that the expanding durable goods industries, such as automobiles, will get the workers they want, although it may not be easy. The lower-wage industries and services—for instance, textiles and laundries—will lose workers or have to get along with poorer grade labor.

A tight labor situation will make things just that much tougher for the wobbling system of wage and price controls, but this may be an academic point.

OPA already is retreating from its old price line at a dead run. An increasing manpower shortage probably won't make it go any faster or farther than it already is going.

Prospects of a short cotton crop have knocked the props from under OPA's hope of holding a line on cotton textile prices.

Under the new price control extension law, ceilings on textiles have to reflect the current market price of raw cotton. OPA had no sooner brought out a new regulation raising prices at the mills from 11% to 23% when the pessimistic crop forecast set raw cotton prices dancing (page 18).

OPA wants to revise the ceilings monthly. The cotton trade is demanding an escalator clause that would take account of daily changes. If the market keeps on rising, OPA will have a hard time making a monthly revision policy stick.

Cotton stocks this year seem headed for the lowest levels since the 1928-1929 season.

The Dept. of Agriculture now figures the 1946 crop for 9,290,000 bales. This is only a little better than last year, and less than three-quarters of the 1935-1944 average. Carryover stocks from last season run around 7,600,000 bales, which also is scant measure in comparison with previous years.

Domestic consumption will eat up about 10,000,000 bales over the next year. And Dept. of Agriculture experts figure that exports of 3,500,000 bales are the absolute minimum necessary to keep a toehold for the U. S. in world markets.

All in all, the cotton carryover at the end of this season probably will run only 3,000,000 to 3,500,000 bales.

Even in the old days a carryover of 3,500,000 bales was only comfortable. After years of working with carryovers of 12,000,000 bales or so, the cotton trade now considers it awfully close sailing.

The current shortage of scrap isn't holding back steel production as much as many experts feared, but it hurts just the same.

Steel operations this week were scheduled at 91.5% of capacity. They probably would be 95% if enough scrap were available. They would be down to 85% if the industry weren't using more pig iron to make up the deficit.

Using more pig iron in the steel furnaces is going to mean trouble for the foundries that work with merchant iron. This in turn spells a tighter situation in castings, already painfully short, and more headaches for industries, such as the railway car builders, that have found castings a bottleneck.



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Have you talked with a Gulf Lubrication Engineer recently about the possibility of making further improvements in production efficiency through better selection and use of oils and greases? He is familiar with many recent developments, has had broad practical experience, and can help you cash in on the many benefits that can

be obtained through modern petroleum science and lubrication practice.

There is a Gulf quality lubricant which will insure minimum wear for every gear, bearing, and moving part in your plant—that will help you improve production and reduce maintenance costs! Call in a Gulf Lubrication Engineer today and ask him to recommend the oils and greases best suited to your needs. Write, wire, or phone your nearest Gulf office.

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More than 400 quality oils
 and greases for industry



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with *Lumarith* film

A CELANESE* PLASTIC

*Reg. U. S. Pat. Off.
†Trademark

• Attractiveness . . . it doubles when you laminate with Lumarith transparent film. Lumarith's satin-smooth surface adds depth-of-color to printing and background coloring . . . has an easy-to-keep-clean surface that is less subject to damage . . . a longer shelf life . . . and greater sales appeal.

Lumarith packaging plastics are helping many sales curves to turn upward. Lumarith is produced in transparent films for bags and wraps . . . sheets for formed and fabricated containers . . . molding materials for special shapes, container-product combinations, and boxes with reuse features. Investigate the potential of this Celanese plastic as a positive sales producer.

Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y., producers of: LUMARITH,* FORTICEL,† CELCON,† CELLULOID,* VIMLITE.*

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FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
THE INDEX (see chart below).	*185.0	183.7	177.8	209.6	162.2
PRODUCTION					
Steel ingot operations (% of capacity)	90.3	89.0	87.9	82.5	97.3
Production of automobiles and trucks	78,597	79,385	74,015	20,790	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$21,054	\$21,109	\$23,179	\$8,198	\$19,433
Electric power output (million kilowatt-hours)	4,412	4,351	4,156	4,395	3,130
Crude oil (daily average, 1,000 bbls.)	4,821	4,881	4,934	4,934	3,842
Bituminous coal (daily average, 1,000 tons)	2,043	2,083	1,886	1,869	1,685
TRADE					
Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	85	85	82	81	86
All other carloadings (daily average, 1,000 cars)	65	67	63	62	52
Money in circulation (Wednesday series, millions)	\$28,326	\$28,245	\$28,335	\$27,269	\$9,613
Department store sales (change from same week of preceding year)	+30%	+33%	+26%	+22%	+17%
Business failures (Dun & Bradstreet, number)	27	14	15	8	228
PRICES (Average for the week)					
Spot commodity index (Moody's, Dec. 31, 1931=100)	348.9	350.7	333.2	254.7	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)	204.2	208.9	206.5	167.1	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)	306.8	311.0	307.6	225.9	146.6
†Finished steel composite (Steel, ton)	\$64.45	\$64.45	\$64.45	\$58.27	\$56.73
†Scrap steel composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.48
†Copper (electrolytic, Connecticut Valley, lb.)	14.375¢	14.375¢	14.375¢	12.000¢	12.022¢
Wheat (Kansas City, bu.)	\$1.93	\$1.94	\$2.02	\$1.60	\$0.99
†Sugar (raw, delivered New York, lb.)	4.20¢	4.20¢	4.20¢	3.75¢	3.38¢
Cotton (middling, ten designated markets, lb.)	35.88¢	34.17¢	34.48¢	22.45¢	13.94¢
†Wool tops (New York, lb.)	\$1.330	\$1.440	\$1.420	\$1.330	\$1.281
†Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.16¢
FINANCE					
90 stocks, price index (Standard & Poor's Corp.)	144.1	142.7	144.4	116.9	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.04%	3.03%	3.03%	3.26%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.50%	2.50%	2.49%	2.61%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	1½-1½%	1½-1½%	1.00%	1.00%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	3-½%	3-½%	¾%	¾%	½-⅓%

BANKING (Millions of dollars)

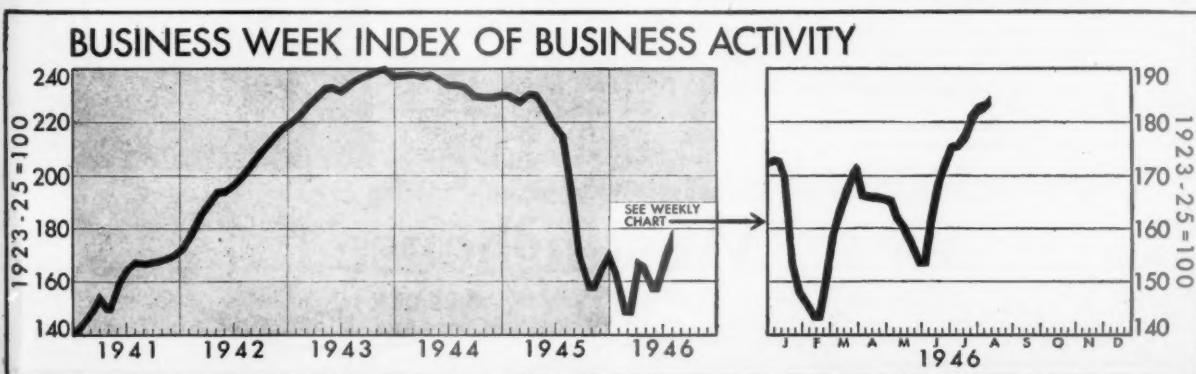
Demand deposits adjusted, reporting member banks	39,069	39,362	39,134	37,062	23,876
Total loans and investments, reporting member banks	59,786	60,662	60,615	63,052	28,191
Commercial and agricultural loans, reporting member banks	8,136	8,018	7,717	5,914	6,296
Securities loans, reporting member banks	3,308	3,441	3,914	4,469	940
U. S. gov't and gov't guaranteed obligations held, reporting member banks	41,454	42,269	42,185	46,771	14,085
Other securities held, reporting member banks	3,455	3,481	3,406	3,306	3,710
Excess reserves, all member banks (Wednesday series)	1,040	890	720	1,066	5,290
Total federal reserve credit outstanding (Wednesday series)	24,134	24,165	24,019	22,606	2,265

*Preliminary, week ended August 10th.

†Ceiling fixed by government.

‡Revised.

§ Date for "Latest Week" on each series on request.

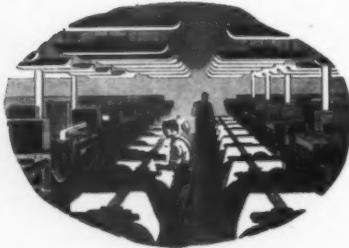


HOW THE BIG FACTORIES
ARE CUTTING COSTS
BY SENDING THEIR
AIR
TO THE CLEANERS

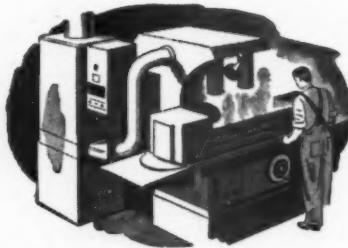
BY REDUCING spoilage and rejects
... by protecting men, machines
and morale...clean air can do much
to lower the cost of finished products.

That's why so many plants are in-
stalling Precipitron*, the electronic
air cleaner. As an independent unit
or as part of the central air conditioning
system, Precipitron operates far
more efficiently than conventional filters...
removing air-borne dirt particles as small as one two-hundred-
and-fifty-thousandth of an inch...
returning clean air to the room. Here
are just three examples of how Pre-
cipitron is helping to cut costs—

*Trademark registered in U.S.A.



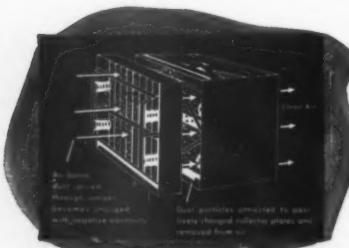
1. In this textile mill, it used to be standard practice to shut down looms at each cut mark to clean the reeds. Now, with Precipitron to clean the air, this operation has been eliminated—saving 8,280 hours per month, and \$13,000 worth of yardage in one fabric alone! In another mill, clean air cut production of "dark shades" from 14.7 to 3.9 percent!



2. Grinding machines in this aircraft engine plant used to throw off a fine mist of cool-
ant oil—which slowed down production,
boosted maintenance costs, created a fire hazard.
Now, with Precipitron units installed over
each machine, the air is completely clean, produc-
tion costs have been cut, and employees are
happier, more efficient.



3. When precision is measured in microns,
the tiniest dust particles can play havoc
with production. That's why Precipitron was
installed in this radio plant, where quartz crys-
tals are ground to tolerances of one one-hun-
dred-thousandth of an inch! Clean air means
fewer rejects, lower cost per unit, better em-
ployee health and morale.



4. Here's how it works: as air passes through
the Precipitron, every particle of dirt is
given a positive electrical charge, is then at-
tracted to negative plates and removed from
the air stream. By actual tests, Precipitron is
far more efficient than any conventional filter
in eliminating foreign matter from the air.

WHETHER IT'S AIR CLEANING, air conditioning, or air handling equipment
you need—here's something to remember: Sturtevant is the *only source*
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Production Reaches for Peak

A year after V-J Day industry is at last getting into full swing. When the complicated figures are untangled, they show that further increases will be smaller, come slower than expected.

This week's first anniversary of the end of World War II (V-J Day was Aug. 14, lest we forget) completes the strangest twelve months in our business history.

Throughout those months, reconversion, strikes, and price troubles vitally retarded production. Moreover, they distorted our production pattern to a point where measurement and forecasting became a statistician's nightmare. • Now Translatable—Now, at last, it can be told. American industry is finding itself, production is beginning to roll, and the hand-writing on the wall can be translated. But the businessman still needs a statistician's key to the puzzle.

With the aid of that key, the V-J Day anniversary production figures tell a heartening but restraining story—that we are well under way but also that we can't go much farther, probably not more than 25% above the level of the first half of this year. Also, that the climb from now on will be slow.

Over-all production is pushing the Federal Reserve Index (1935-39 =

100) up to the 180 mark for August. That's almost 20 points above the average for the first six months of this year—which was also, significantly, the average for the banner year of 1941. This is the measure of the rebound from the May strike low of 160.

• **Leading the Parade**—Durable goods, knocked down by reconversion and strike troubles in the first half of 1946 (to an F.R.B. average of 13% below 1941, while nondurables were carried 15% above their 1941 mark) are finally leading the parade again (chart, left, below). Steel operations are running at over 90% of capacity; auto assemblies are past the four million annual rate; lumber output is bettering 1941 highs.

In some lines, production is higher than you think if you have been judging it by visible output of finished goods. It has gone into raw materials, parts, and components that have been moving into inventory pipelines, slowly readying the plants for a sudden burst of deliveries. That happened in the automobile industry: There an apparently laggard weekly rate of assemblies

reaching only 40,000 in the first half-year has doubled in recent weeks.

• **Catching Up**—Accordingly you can expect a bigger jump in finished goods from recent depressed levels than the F.R.B. indexes show—as these goods catch up with the production statistics.

The F.R.B. auto index should illustrate the point: Based essentially on man-hours worked, many of which were then going into subassemblies, components, and plant rearrangement, it fell off only 14% from 1941 averages in the first half of 1946, while car assemblies were down 66%. Now assemblies are catching up with the index.

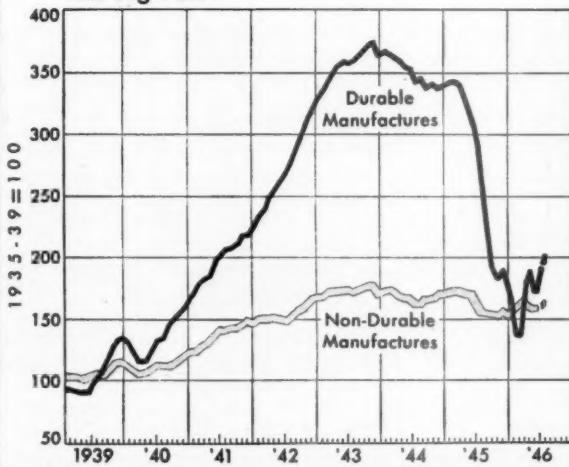
And textiles provide another case for upping your bets on finished production: The F.R.B. index shows a lot of cotton and rayon going through the mills, but there has been a heavy diversion of poundage from apparel to tire and bagging fabrics; a small rise now in cotton and rayon poundage can produce a jump in finished apparel.

• **They Cut Two Ways**—But not too much statistical hay should be made of such statistical discrepancies. They cut two ways. Thus, F.R.B.'s index of meat output by federally inspected slaughterhouses is low because it doesn't take into account the black market output of small packers. A shift back to normal operations now will mean a rise in the meat index but not in meat supplies.

Again F.R.B. uses steel ingot output as a measure of the production of the en-

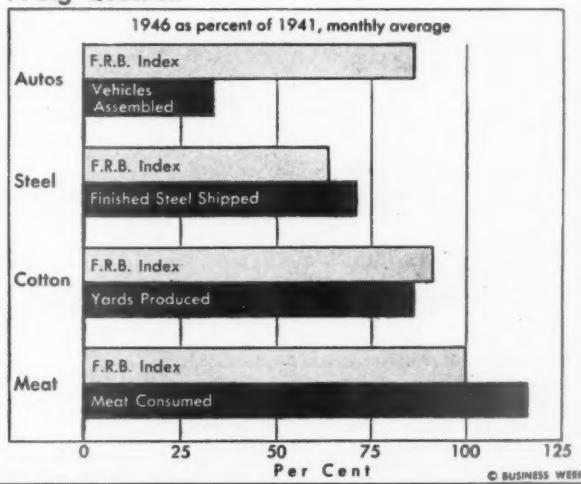
WHAT'S HAPPENING TO PRODUCTION IN 1946

The Big Fact



The big fact about production now is that durable goods are coming out of their strike slump of the first half of 1946 which dropped them below prewar peak output levels while nondurables were running ahead. They will

A Big Question



continue up, though obviously not to wartime highs. A big question is: How do you measure production when distortions like those of 1946 make the indexes contradict output records, as described in the accompanying report?

tire steel and steel products industry. While that index was reflecting a strike-forced cut of 37% in ingot output, it was a fact that shipment of sheet, shapes, and other finished steel prod-

ucts, more representative of down-the-line fabrication, were off only 29%, for mills were using ingot inventories.

• **Revealing Door**—The statistician's key also opens a revealing doorway to the

future, but some of those who look through may find their expectations checked a bit.

It shows clearly that the upsurge in production has already carried us very close to the limit of industry's practicable productive capacity, set both by plant facilities and by labor supply (page 9). Economic analysis, using the over-all F.R.B. index of production, which escapes much of the criticism leveled at F.R.B.'s individual industry indexes, says we'll reach that limit when we cross the 190 mark. That would put us 15% to 20% above the 1941 and 1946 first-half averages and leave us only ten points to go above the probable August figure of 180.

• **Toward the Crest**—A *Business Week* analysis of the F.R.B. figures and of detailed output and general production data, line by line over the whole range of American industry, leads to the conclusion that the country's capacity permits a production rise in finished goods to 25% above the level of the first half of 1946, as against the 15% to 20% which the F.R.B. index measures as the distance to the peak. But this, too, is not a promise of the future "flood of goods" that some enthusiasts have envisioned. We are moving toward the crest now.

To be sure, the production gains that are in the making will have a great practical effect and a still greater psychological effect, even if the "flood" rises down to 25%.

• **Consumer Durables**—The most troublesome shortages have been those in consumer durable goods. Now they are on the way, including the much-sought-after home appliances.

Bottleneck items that have trailed will soon catch up. Renewed production of strikebound copper and lead, down 62% and 40% from 1941, flashes the go signal to a variety of lines calling for these crucial metals.

• **Readjustments**—Shrewd production readjustments can yield spectacular effects. As a case in point, output of men's clothing has lagged while that of women's suits and coats has soared. Here an even partial reverse in the flow of woolen cloth for apparel can break one severe shortage without creating another.

However, the limits are plain to see. Steel capacity, with bottlenecks bound to cramp its output for some time, is little greater than it was in 1941, and many of the heavy industries will revolve around steel supplies.

Textile and apparel manufacturers, not yet fully recovered from the effect of wartime labor shortages, are heading into a period of shrinking manpower.

Over-all industrial output is already near its top, and the rise from an F.R.B. level of 180 to 190 will not be accomplished quickly.

What's Happening by Industries

If you want to know what has happened to production in 1946 in any one industry—and if a figure on it is available—you're apt to find the answer in the comprehensive compilation of production statistics below.

• **Two Types of Data**—In this table, monthly output in the first half of 1946 is compared with monthly output in 1941, the prewar banner year. (Exceptions, where 1939 or 1940 data must substitute for missing 1941 records and where figures are available for only three, not six, months of 1946, are duly noted.) Comparisons are based on two types of data, Federal Reserve Board Index figures and actual output in units, square feet, barrels, etc., as specified in each case.

Amazing divergences appear. Men's suits are down, women's way up; plate glass is down, but glass bottles are up; cigars are off, but cigarettes are doing beautifully. Within single industries, production is shown to vary at different stages. Thus, rayon poundage is way up, but rayon cloth is negligibly up; auto assemblies have been far down; activity in auto plants is off only slightly.

• **Effects to Continue**—The current upsurge in industrial output is now ironing out many of the divergences and discrepancies. But the economy will feel the effects of earlier distortions for a long time to come—and the figures should help to show what we have to overcome.

Production	% Change 1941-1946*
Alcoholic beverages (F.R.B.)	+84d
Malt beer (F.R.B.)	+55d
Whisky (F.R.B.)	+34d
Wines (F.R.B.)	+166d
Automobiles (F.R.B.)	-14
Automobiles (units)	-66
Trucks (units)	-19
Chemical products (F.R.B.)	+33
Industrial chemicals (F.R.B.)	+86
Paints (F.R.B.)	+7
Rayon (F.R.B.)	+50
Soap (F.R.B.)	-12
Iron and steel (F.R.B.)	-34
Cast iron radiation (sq. ft.)	-63
Cast iron soil pipe (tons)	-40b
Electric ranges (units)	-40b
Gas ranges (units)	+7a
Pig iron (tons)	-38
Steel ingots (tons)	-37

Leather and products (F.R.B.)	.....	+5
Shoes (F.R.B.)	.....	+11
Lumber and products (F.R.B.)	.....	-10
Furniture (F.R.B.)	.....	-3
Lumber (F.R.B.)	.....	-14
Machinery (F.R.B.)	.....	-2
Electric irons (units)	.....	-1c
Radios (units)	.....	-13b
Refrigerators (units)	.....	-54b
Replacement batteries (units)	.....	+29
Sewing machines (units)	.....	-64
Vacuum cleaners (units)	.....	-2b
Washing machines (units)	.....	-3b
Manufactured food products (F.R.B.)	.....	+9
Confectionery (F.R.B.)	.....	+13
Fats and oils (lb.)	.....	+2
Fruits, processed (lb.)	.....	+19
Manufactured dairy products (F.R.B.)	.....	-25
Meat (lb.)	.....	+16
Meat packing (F.R.B.)	.....	0
Other manufactured foods (F.R.B.)	.....	+13
Vegetables, processed (lb.)	.....	+18
Wheat flour (bbl.)	.....	+32
Minerals (F.R.B.)	.....	+1
Coal (F.R.B.)	.....	-6
Crude petroleum (F.R.B.)	.....	+22
Motor gasoline (bbl.)	.....	+7
Nonferrous metals (F.R.B.)	.....	-27
Refined copper (tons)	.....	-62
Refined lead (tons)	.....	-40
Zinc (tons)	.....	-11
Paper and products (F.R.B.)	.....	-5
Paper (tons)	.....	+3
Paperboard (tons)	.....	+7
Printing and publishing (F.R.B.)	.....	-2
Newsprint consumption (F.R.B.)	.....	+2
Rubber products (F.R.B.)	.....	+34
Automobile tires (units)	.....	+25
Truck and bus tires (units)	.....	+40
Stone, clay and glass products (F.R.B.)	.....	+11
Brick (pieces)	.....	-20
Glass containers (F.R.B.)	.....	+64
Gypsum board (sq. ft.)	.....	0
Plate glass (F.R.B.)	.....	-11
Portland cement (bbl.)	.....	-20
Textiles and products (F.R.B.)	.....	+6
Cotton consumption (F.R.B.)	.....	-8
Cotton goods (yd.)	.....	-12
Men's coats (units)	.....	+250
Men's trousers (units)	.....	+140
Men's suits (units)	.....	-10
Rayon goods (yd.)	.....	+5
Rayon deliveries (F.R.B.)	.....	+45
Women's dresses (units)	.....	-20a
Women's suits (units)	.....	+410a
Women's coats (units)	.....	+50a
Wool textiles (F.R.B.)	.....	+5
Woolen, worsted fabrics (yd.)	.....	+9d
Tobacco products (F.R.B.)	.....	+26
Cigars (F.R.B.)	.....	-3
Cigarettes (F.R.B.)	.....	+51

* Comparisons based on other data than 1941 averages are indicated by letters: (a) 1939 average; (b) 1940-1941 average; (c) 1940 average. Cases where first three months of 1946 are used, instead of first six, are indicated by (d).

Most War Profits Unchallenged

Termination settlements O.K.'d by the services won't be reopened unless evidence of fraud turns up. Investigations are in the cards, but law protects contractors who settled in good faith.

The uproar in Washington over war profits need not worry any contractor who has settled up his accounts with the government in good faith and now wants to know if his profit—or what is left of it—is his to keep.

• **Law Offers Protection**—Investigations of specific cases, such as the Mead committee's probe of the Garson brothers and their alleged entente with Rep. Andrew May, will continue, probably for years. Some day there could be a grand scale congressional muckraking party, like the Nye investigation of the thirties. But there won't be—now or in the future—any general reopening of contracts or attempt to make contractors refund profits that have cleared through the regular procurement and renegotiation machinery.

For one thing, it would be illegal. For another, it would involve an impossible amount of work.

As the law stands, once a contractor has wound up a fixed-price contract, accepted a termination settlement from the Army or Navy, and made his peace with the price adjustment (renegotiation) board and the tax collector, he is entitled to keep anything he has left. Unless there is evidence of fraud neither the Justice Dept., nor the Comptroller General, nor any congressional committee can force him to give anything back.

• **Terminations Final**—Briefly, the situation lines up like this:

(1) All termination settlements ap-

proved by the services are final unless the General Accounting Office finds some evidence of fraud.

(2) All renegotiation agreements are likewise final.

(3) Payments made under fixed-price contracts are subject to GAO approval only where there is a question of whether the payment is in accord with the terms of the contract—that is, the GAO checks to make sure there hasn't been overpayment but it can't challenge a payment that the contract provides for.

(4) Payments under cost-plus contracts are subject to GAO approval, and the Comptroller General can refuse to O.K. expenses he does not consider legitimate even though the services have cleared them. There's a possibility here that a manufacturer might be tapped for a refund after he thought everything was settled, but as a rule the GAO gets its audits done before renegotiation is finished.

(5) Any case involving fraud can be reopened and reviewed no matter what clearances the services have given. Where fraud can be proved, the Justice Dept. takes over and brings criminal action.

Where 1945 income is involved contractors still have to go through the regular renegotiation mill, which means that their profit for the year is not yet settled.

• **A Jolt for Some**—The relation between renegotiation and contract termi-

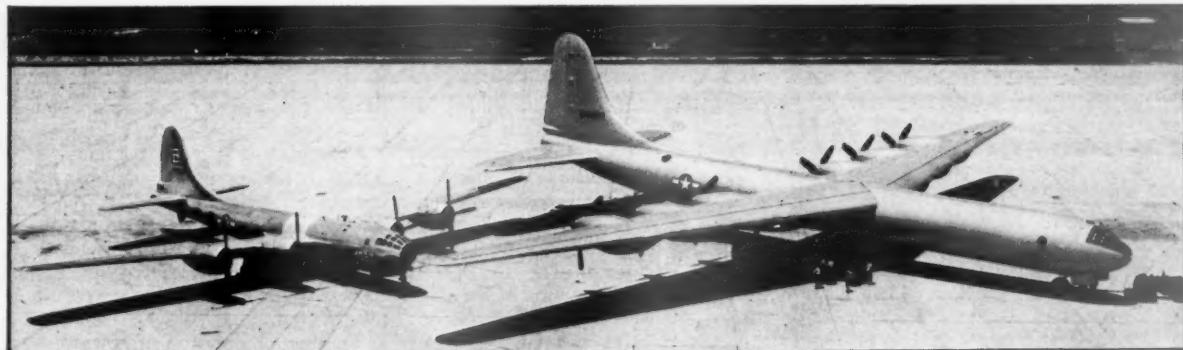
nation is a little fuzzy, and some contractors may be jolted to find their termination settlements included in the price review. Termination agreements are supposed to take care of the contractor's claims under the contract that was canceled. Renegotiation is supposed to appraise his total war business for the year and recover any "excessive" profits. Hence, price adjustment boards will consider termination settlements along with other income from war contracts in deciding what is a fair profit for the contractor. In practice, renegotiation officers don't expect this to cause much trouble because the standards followed in renegotiation and termination are about the same.

Comptroller General Lindsay C. Warren's charges of laxity and fraud in termination settlements circulate at a considerable discount in Washington. Warren has a long-standing grudge against the services, which dates back to the time his GAO was frozen out of termination over his violent protest (BW-Oct. 30 '43, p22).

• **Independent Audits**—The Office of Contract Settlement took an indirect slap at Warren in its last report by explaining that it had made periodic checks of settlements using independent auditors. The last survey was made in the early part of this year. It covered 83 large prime contracts in 17 procurement offices. The auditors found no "indication of inadequate negotiation or review."

Nevertheless, it will be a long time before the dust the Mead committee started raising settles down. Within the last few weeks, new investigations have been bobbing up right and left.

The Mead committee itself finally has obtained authority from President Truman to dig into the tax returns of contractors they suspect of shady prac-



FOR LONG FLIGHTS TO SOMEWHERE

Last week while peacemakers wrangled, the U. S. Army and industry took another stride along the road to more air power. The XB-36, world's largest bomber, beside which the B-29 looks like a pup (above), made its first flight at Fort Worth, Tex. Powered by six 3,000-hp.

pusher engines, the 36 is the first of an Air Forces fleet to be built by Consolidated Vultee, and the military counterpart of the proposed commercial CV-37, in which Pan American is interested. It carries a 30-ton bomb load, has a 230-ft. wing span, a 10,000-mi. range. And last week, two robot radio-controlled B-17's made a sensation by flying from Hawaii to California—without pilots.

tices. In New Orleans, the Dept. of Justice is poking into the affairs of boatbuilder Andrew Jackson Higgins (BW—Aug. 10'46, p5). Henry Kaiser and others generally regarded as favorite children of the Administration are pretty sure to find one investigating committee or another prowling around.

• **Wants to Air Troubles**—Kaiser, incidentally, has stolen a march on his critics by announcing that he would welcome an investigation. Still fuming at the big steel companies, he wants a chance to complain about his difficulties in getting material for ship construction during the war. He also would like to register another outraged protest against what he considers the hard bargain the government drove with him in financing his Fontana steel works.

Do You Lobby?

If you do, you will have to register four times a year and put receipts and expenditures in the congressional limelight.

Federal regulation of lobbying became law this month after 40 years of abortive efforts to force identification of persons and groups and the amounts they spend trying to influence legislation. But the headlines won't come until Jan. 4, when the first Congress-

sional Record to be printed after Congress convenes will list all lobbyists and their financial statements filed under the law. It looks like a best seller. • **Three Classes**—Those who must register, beginning now, fall roughly into three classes:

(1) Persons and groups who initiate propaganda like telegrams and letters to congressmen, usually in conjunction with campaigns of a sporadic nature.

(2) Those who get paid for going to Washington to exert some kind of mysterious influence for pressure groups.

(3) The large group of business, professional, and religious organizations who openly maintain offices, usually in Washington.

• **Unaffected**—Exempt from registration are persons who state their personal opinions or testify to Congress as an incidental part of their work, newspapers and magazines, public officials in their official capacity, and groups already required to register under the corrupt practices act.

Registration is required four times a year in the form of a sworn affidavit answering questions posed in the law regarding contributions and expenditures. The statements must be sent by registered mail to both the clerk of the House and the secretary of the Senate.

• **Under Way**—The first registration is on now. Registrants may use their own forms, since official forms will not be issued until the turn of the year. The first financial statements are due Oct.

10 and will cover only the Aug. 2-Oct. 10 period.

Public utility lobbies were required to register with the Securities & Exchange Commission, by the Public Utility Holding Company Act of 1935, and shipbuilders' and operators' lobbies have had to register with the U. S. Maritime Commission since 1936. In 1938 and 1942, wartime controls were set up over persons paid by foreign governments.

• **Legal Questions**—The vagueness of the new law, which the courts will have to define, probably leaves loopholes, but the responsibility of determining whether or not to register is left to the lobbyists. The Criminal Division of the Dept. of Justice will have charge of enforcement. Penalties are a \$5,000 fine or a year in jail.

Opposition to the law is expected from such groups as the Committee for Constitutional Government.

• **How Many**?—No one will guess how many lobbyists will show up on the January list, but judging by the names listed in the Washington telephone directory it will be a big one. Labor won't be exempt, despite the clause exempting political committees, because many of labor's agents are busy with legislation. Persons paid to seek government contracts, removal of controls, or federal jobs, however, need not register.

The key to the new law is: Does the propaganda try to influence legislation? If it does, its author must register.

What's Happening to Prices—a Weekly Closeup

As required by the provisions of the new price-control act, OPA this week announced an average price increase of 7.3% for the automobiles now being turned out. The increases, the fourth set of advances announced by OPA since last November, range from \$62 at retail for the Chevrolet Stylemaster to \$322 for the Cadillac series 75.

Manufacturers get nothing out of the new increases, which came under those terms of the new act which prohibit cost absorption by dealers.

• **Asking for More**—Early this week, dealers were demanding that prices which are now 22% above 1942 levels rise still further. They claim they are still absorbing an additional \$50 to \$60 of car handling charges.

The official government estimate last week of a 9,290,000-bale cotton crop next year brought an immediate rise in futures' prices on the Cotton Exchange. The trade, which had been estimating 200,000 more bales than the government, shot the price

up the permissible daily \$10 a bale almost immediately.

• **Subsidy Reduction**?—The low crop estimate, together with predicted record demand, has given rise to some talk that the 4¢-a-lb. export subsidy on raw cotton may be reduced.

There is some fear that trading in cotton cloths will slacken almost to the vanishing point. With the raw cotton price rising, the trade chafes under OPA's method of fixing a given month's cloth ceilings on the average price of raw cotton over a previous period.

• **Grain Discussion**—The Decontrol Board's hearing on grains in the fore part of this week followed closely on the record crop estimates of the Dept. of Agriculture (page 19). Most witnesses testified as you would expect, judging from the organizations which they represented. Noteworthy was the American Farm Bureau's Edward A. O'Neal, who opposed grain recontrol as a mistake despite

his organization's previous record of support of OPA.

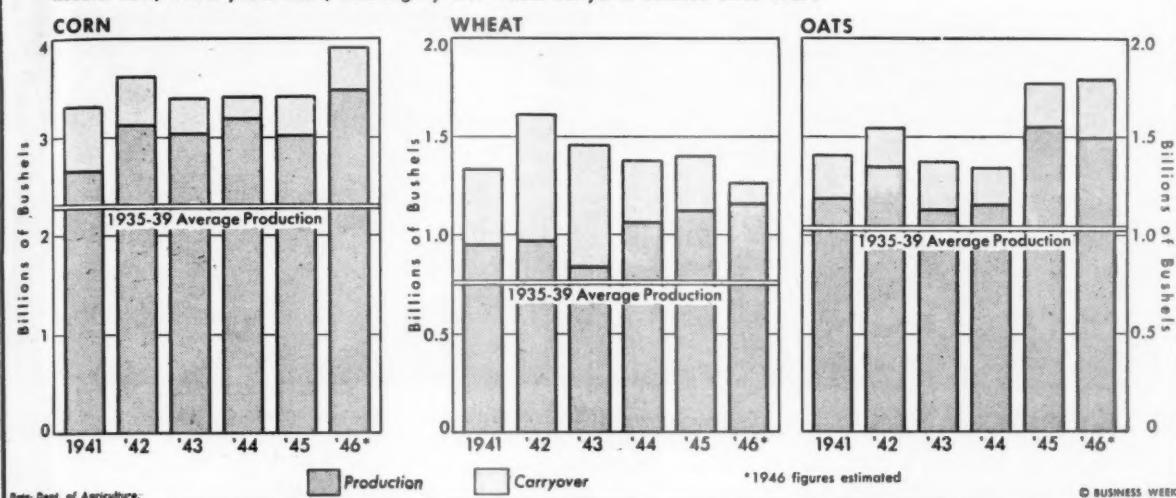
Imports continued to make news. OPA, although refusing to decontrol under provisions of Section 10-x, finally increased the surcharge on imported kid and goatskin leathers from 10% to 40%. However, there will be no adjustment in shoe prices until the earnings of shoe companies are reviewed (BW—Aug. 10'46, p16).

• **Newsprint**—The price agency was forced by the supply situation to permit open billing on Canadian newsprint and woodpulp (page 100) while the manufacturers' petition for a \$6.80-a-ton increase based on Canadian dollar revaluation was being investigated.

Trading in cocoa futures continued to be suspended while the trade waited for OPA to act. Early July buying had been at prices 6¢ above reimposed ceilings. Of the U. S. coffee trade's 8,500,000 bags on hand, 44% was bought in July at prices 3¢ a lb. above the old ceilings.

GRAIN ESTIMATES SOAR

Record corn, wheat yields seen, oats slightly off. Wheat carryover smallest since 1937.



Data: Dept. of Agriculture.

Bumper Grain Crop Assured

With wheat and corn expected to break all records, the only uncertainties are price control and export percentages. End of drought in Midwest adds millions to farmers' cash outlook.

Grain producers, grain users, and the grain trade face one major certainty and two major uncertainties.

Certainty: The 1946 grain crop will be the bumper crop of all time.

Uncertainties: (1) Will the Decontrol Board reestablish price ceilings on grain and grain products at the time the OPA law permits, Aug. 21? and, (2) how much grain, beyond normal export tonnage, will be shipped overseas for relief and other extraordinary purposes?

• Biggest in History—The official Aug. 1 crop forecast, issued last week end, was the most optimistic ever. It reported that corn and wheat crops should be the biggest in history, oats the second biggest. Soybeans are just short of 1945. Barley and rye are down not only from their high years but also from the ten-year averages of 1935-44. But these two secondary crops add up to less than a quarter of wheat production. Wheat, at 1,160,000,000 bu., is 37,000,000 bu. above 1945's record crop, 316,000,000 bu. above the ten-year average.

At that, this forecast understated probable crop yields because conditions changed for the better between the time that its statistics were gathered and the time that it was published. In the interim, a drought in the Midwest was broken, leaving only one serious drought threatening a major grain territory. The ground was still dangerously dry in the Southwest. But corn is the

only grain crop remaining unfinished there, and the total corn raised in Kansas, Oklahoma, and Texas is less than one-fourth of the Iowa crop.

• Rain Worth Millions—Superimposed for good measure upon the tremendous crop forecast was last week end's "million-dollar rain," as it was hailed in Corn Belt headlines. Actually this was an underappraisal of what the four-hour downpour was worth to farmers of the fertile land belt of northern Illinois and Indiana, southern Wisconsin and Michigan.

This area accounts for perhaps 400,000,000 bu. of corn alone. If the rain boosted corn crop prospects there by no more than 15%, the 60,000,000 bu. magically added are worth upwards of \$80,000,000 at today's prices for delivery next January in Chicago.

Corn thus snatched from the grip of drought had sunbaked for six showerless weeks to the brink of "firing," in which lower leaves begin to turn a crisp tan and irreparable damage occurs. Overnight the fields regained the healthy, dark green of deep summer. September's unfailing rainy season would keep them green and carry the ears through to harvest.

• Active Bidding—The crop prospects contrast sharply with the supply of grain now available for use. Cash corn—the stuff the cows can eat and the feed millers and wet processors can grind—is scarce and expensive. Cash

corn soared to \$2.28 Chicago basis after price controls lapsed July 1, since then has stabilized around \$1.90, which is well above previous ceilings.

This increase marked the desperate need especially of the processors, who bid prices up to fill their bins with enough raw materials to carry them to the new crop. They are now sitting it out until they see which way OPA will jump. January corn futures, which are promises to deliver corn from the 1946 crop, are selling below previous ceilings.

• Argument Against Controls—At Decontrol Board hearings this week, the American Feed Manufacturers Assn. urged that price controls not be reestablished on either their raw materials or their products. The argument was that supplies of feedstuffs will be so generous in relation to livestock numbers that feed prices cannot go high during the 1946 crop year. They hail the high price of cash corn for inducing farmers to empty corn cribs right now when most needed.

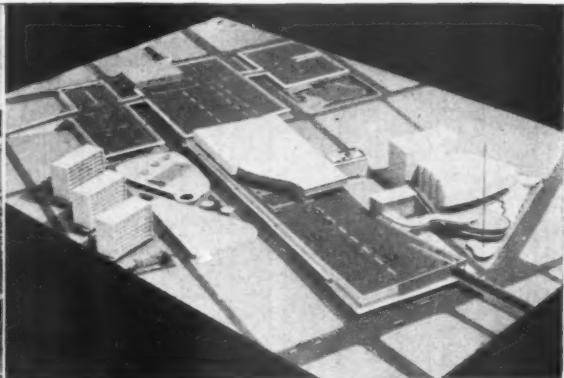
Only two varieties of meat can be quickly propagated to take advantage of cheap, plentiful feed and of meat scarcities: hogs and poultry. Last spring, with feed shortages ahead, hatcheries sharply curtailed production of chicks, and corn-hog farmers bred fewer sows for fall farrowing.

• Better Beef Likely—These trends should now reverse. An increase in chickens could be noticed at the meat counter by midwinter. But 1947 spring pigs won't begin coming to market until 13 months from now.

If the Decontrol Board leaves ceilings off grain, feed, cattle, and beef, Corn Belt feedlots should fill up next fall with thin stuff now on grass.

Expectable results: more beef than the same animals would produce if

Model Retail Center Planned for Flushing



Housewives of New York's Flushing section have been looking down their noses at sisters of less favored neighborhoods since last week's announcement that they are to have a retail center that is the answer to a shopper's prayers. The \$50,000,000 project will do much to compensate them for the lost glories of the New York World's Fair and for the fleeting fame of the United Nations' tenancy of exposition buildings.

Minor features of the dream center will be moving sidewalks for tired feet and currents of conditioned air to cool the streets in summer, warm them in winter.

• **By Webb & Knapp**—The project has been launched by Webb & Knapp, New York realtors who have a reputation for big things. Another solid fact is that the Metropolitan Life Insurance Co. has a mortgage on the property (though it won't admit that it is financing the entire scheme).

The undertaking represents one more in a list of many efforts the country over to combat traffic congestion's threat to urban business

property values (BW-Jul.6'46,p38).

The site comprises 800,000 sq. ft. in the heart of Flushing which is now a tangle of traffic and a montage of outdated architecture. It is on the Long Island Railroad, skirts the terminals of two subways, is a solar-plexus of highways. Models and drawings are daring in their conception, display a definite spiritual kinship with the 1939 fair's "world of tomorrow."

• **Including a Theater**—In addition to stores, the plans include two office buildings, a hotel, and an amusement center whose main feature will be a 4,000-seat movie theater devoted to elaborate shows like those of Radio City's Music Hall (which seats 5,945). All buildings will be connected by bridges or subterranean passages, and the latter will have moving platforms.

Each three-story building will afford rooftop parking, with an ultimate capacity of 5,000 cars. The bus terminal will accommodate 80 vehicles at a time. All trucking and services will be removed from the street level to underground ramps.

Babies will be parked in a scientific nursery.

• **In Two Years**—The center is to be privately financed. Webb & Knapp say construction will start within a year, and it expects to finish it in two years.

This is not the sort of company that announces high-falutin' plans just to get its name before the public. Webb & Knapp has bought, sold, and managed important properties all over the country. Its clients include Vincent Astor, many New York banks, and large industrial corporations. This is the concern which engineered the deal to replace New York's snooty Marguery Hotel (above the New York Central tracks on Park Avenue) with a 35-story office building.

• **And in Denver**—It bought Denver's Old Courthouse Square as a building site but the transfer was interrupted by a taxpayers' suit (BW-Apr.6'46,p27).

The Flushing development will be watched closely by cities which seek ways of adapting downtown shopping areas to the automobile age.

killed as range critters; and, tender, marbled beef replacing stringy, tough stuff.

• **Unknown Quantity**—Grain for foreign relief use is a quantity hard to predict. Indications are for a reduced export program because of heartening crop prospects abroad. But even a heavy tonnage of exports could probably be deducted from U. S. 1946 grain supplies without being felt significantly here.

RIEBER JOINS STANDARD

It didn't take long for Capt. Torkild Rieber to let the world know what his next move would be in the current

resurgence of his interest in the oil industry.

The word had hardly gone out that Rieber, dethroned chairman of the Texas Co. and now president of Barber Asphalt Corp., had arranged to sell Barber's Venezuelan oil royalty rights to Shell Petroleum Co. (BW-Aug.10'46, p20) before a second announcement was made, linking Barber—and Rieber—with Standard Oil Co. of California and its new plans to enter the East Coast petroleum products market (BW-Jun.22'46,p71).

Last December Standard of California leased storage space from Barber Asphalt at Barber, N. J., and formed a subsidiary to line up independent dis-

tributors for the petroleum products shipped from its West Coast refineries.

This week, Standard acquired an interest in Barber's refinery and marine terminal; and the two plan to become joint stockholders in a new company, California Refining Co., which will operate these facilities. Rieber will be chairman of California Refining, thus will occupy a key post in Standard's eastern expansion program.

The new setup could become even more important if and when Standard decides to import oil from Arabia, where it holds important concessions jointly with Texaco—a deal which Rieber helped arrange back in the days when he headed Texaco.

Price Chaos Cuts Production

Distribution also suffers as open pricing causes goods to back up in jobbers' hands. Industry bases hopes on decontrol measure, but procedure is complex and faces discouraging delays.

Industry still faces weeks of chaos and confusion as it learns to live again with OPA and to operate under a new and frequently mysterious price law. Business expects ceilings to be raised—more, probably, than they actually will be. The general uncertainty of all prices is causing, and is bound to cause, a jamming up of production and, even more, of distribution.

• **Goods Backing Up**—Widespread use of escalator clauses and of open pricing is already backing up consumer goods in the hands of jobbers, since the chain of uncertainty stops with the retailer, who has to sell at a definite price. This month's blockage of shoe manufacture (BW—Aug. 10 '46, p.26) resulting from the lag in adjustment of hide, leather, and shoe prices is typical of the sort of thing to be expected.

Some of the instability is intrinsic in the new law. Textile prices, for instance, newly tied to the price of raw cotton, will have to be adjusted monthly, and some textile people argue that the law requires daily adjustments. Chances are that the 17% increase already granted will be followed by another in September.

• **Hit by Uncertainties**—But apart from such legislated price flexibility, business is chiefly hit by uncertainty as to the meaning and effect of new features of price control, 1946-47 model:

(1) Many producers are expecting substantial price increases under the so-called Barkley formulas, billed as restoring 1940 manufacturers' margins.

(2) Some businessmen hope to get out from under price control entirely, on the basis of the new decontrol standards laid down for OPA and—more to the point—of the provision for appeal to the new Decontrol Board (page 22).

The price of all imported goods and goods made from imported materials is clouded by a clause in the law (10-x) which, on its face, would compel recognition of the higher world prices.

• **Disappointments Due**—No one yet knows how these features will work out. But the indications today are that on each of them the ambiguities will be resolved on the side of price stability—that businessmen hoping for relief from price restrictions are going to be disappointed.

No industry has yet come in with formal requests for price increases under the Barkley formulas. None can, until OPA issues a regulation defining the form of the petition. The regulation

is expected next week. But the few industries which have made informal approaches are deeply discouraged—both at the procedural complexity resulting from OPA's strict interpretation of the law, and at the small price adjustments obtainable.

• **It's Not Simple**—Applications must be made by whole industries, not by single firms. First step must be a meeting of the industry advisory committee which immediately faces the problem of collecting data from many firms. All calculations under the formulas are based on industry-wide average cost and price figures.

Few firms are entirely happy about turning over information of this sort to

the advisory committees. And any attempt to use trade associations as a clearinghouse risks running afoul of the antitrust laws. Likely solution, in most cases, will be to retain a firm of accountants to do the work.

They'd better be good accountants. Few firms keep cost records on a product-by-product basis. A special analysis of direct labor costs and allocation of overhead and sales costs will often be necessary.

• **Question of Bargaining**—Then the committee will have to decide on a representative sampling of firms in the industry from which to collect data—including an appropriate proportion of large and small outfits, integrated and nonintegrated concerns, and the like.

Now comes a crucial point. A few good negotiators must be delegated to get together with OPA and define the "products" of the industry. Everything else in the process may be straightforward calculation, but this is a matter of bargaining—and the bargaining will often determine the size of the price

How to Get a 1¢ Price Increase

Here is the sad and fictional story of the antismouse products industry and how it tried to get a price increase. Main product of this hypothetical industry is mousetraps—a standard competitive line and a higher-profit supermouser line. As a service, it also sells at a small margin of profit synthetic cheese for baiting the traps. And it does a small but very profitable sideline business in cats.

Since 1940 it has had some price increases but not enough to prevent deep cuts in its margins—from an

over-all 26% in 1940 to less than 10%. So when the industry heard that the new price law would restore 1940 margins, it went right to work and collected from its members the average cost and price figures below. But alas, when it worked out the calculations, what did it get?—a measly 1¢ each on traps and cheese, nothing on cats, and an over-all margin of only 11.5%.

Forthcoming OPA regulations may change the details of these calculations, but this is about the way it will work:

	Mousetraps				All
	Standard	Super-mouser	Weighted Average	Cheese	Cats Products
1940 sales	\$1,500,000	\$500,000		\$1,000,000	\$100,000
1940 unit price .....	.50	1.00	\$0.625	.10	1.50
1940 unit cost .....	.417	.75	.50	.09	.50
1940 margin			25%	11%	200% 26.1%
Current sales	\$500,000	\$1,500,000		\$1,000,000	\$100,000
Current price .....	.60	1.25	\$1.088	.16	1.50
Current cost .....	.58	1.10	.97	.16	1.00
Current margin			12.2%	0	50% 9.5%
Individual product formula					
1940 cost .....				.50	.09 \$.50
Current cost .....				.97	.16 1.00
Cost increase .....				.47	.07 .50
1940 price .....				.625	.10 1.50
Formula price				1.095	.17 2.00
Industry margin formula					
Current cost .....				.97	.16 1.00
Industry average margin at 26.1% .....				.253	.042 .261
Formula price				1.223	.202 1.261
Prices OPA allowed					
New price .....	.61	1.26	1.098	.17	1.50
New industry margin					11.5%

Industry's Spokesman Has Key Decontrol Spot

It is necessary to strain hard to see in the Decontrol Board—named to arbitrate the tapering off of price control—the pattern of special-interest representation which became traditional in wartime adjudication agencies.

• **Who They Are**—Chairman Roy L. Thompson can perhaps be considered a spokesman for agriculture. He has a land bank background. Daniel Bell, a professional, nonpolitical civil servant and proud of it, might be called the public representative. And as a successful paper manufacturer, George H. Mead (see cover) certainly comes from industry.

Some businessmen may be inclined to make the easy crack that Mead has come a long way from industry. He is no New Dealer; since the early thirties he has periodically made it his job to present a business viewpoint to government and to

labor. But his business friends sometimes think that the experience has made him over-receptive to government and labor viewpoints.

• **Approved Case Bill**—It was some such feeling that eased Mead out of the chairmanship of the industry group on the old tripartite National War Labor Board. His industry colleagues, fighting a last ditch battle against the maintenance-of-membership principle in labor contracts, weren't pleased when Mead's firm voluntarily signed just such a contract with its workers.

Mead himself doesn't hold with the arms-length conception of government-industry-labor relations implied in these criticisms. "I don't think labor's stand is as radical as industry thinks it is," he says.

At the same time Mead has never gone down the line with labor. He strongly approved of the Case bill

as "the first sound piece of labor legislation . . . in twelve years."

• **Shy of Publicity**—Quiet, personally unassuming, a shunner of publicity, Mead isn't the man to broadcast his views on price issues. He is the only member of the Decontrol Board who has refused to talk to the press since his appointment.

Mead has spent his business life in the family paper manufacturing business founded by his father at Dayton a century ago. Now known as the Mead Corp., the business grossed nearly \$41,000,000 last year. Mead is paid about \$50,000 a year as chairman of the board. He has turned down the \$12,000 Decontrol Board salary.

At 68, Mead is a quiet, graying man in a double-breasted suit, sometimes enlivened by a bow tie. He plays a vigorous golf game and neither drinks nor smokes.

increase. Basis of the Barkley formulas is comparison of current and 1940 margins on each product. Obviously, if some items with a low 1940 margin are included in the same "product" as high-margin items then the base-period margin for the product is reduced.

• **Definition Lacking**—OPA doesn't have and doesn't expect to have even a good working definition of a "product" which can be generally applied. Of one thing only it is certain—all price lines of an item are part of the same product. And, right there, industries which have upgraded—concentrated their production on the high-price, high-profit ends of their line—will find they have wiped out most of the price increases coming to them under the Barkley formulas.

In the hypothetical example of the mousetrap industry (box, page 21), notice how different the result would have been had standard and supermouser traps been treated as separate products, or had they been still produced in the same ratio as in 1940.

The only distinctions on which OPA will go along are distinctions of construction or use. Thus OPA might perhaps admit that felt and innerspring mattresses are different "products," but it would insist that \$19.50 and \$49.50 innerspring mattresses are the same "product."

• **Production Guarantee**—Next the industry must prepare to prove that a price increase will result in a "substantial" increase in production—and will do it without stealing materials or labor from some other product. Unless

this is proved, all that the new law offers is the unexciting prospect of cost plus what OPA considers a "reasonable" profit.

If all these hurdles can be overcome, the industry representatives then are ready to apply the basic Barkley formula—the product formula. Essentially this provides: The average unit price of the product for the industry must equal the present average unit cost plus the average unit markup—in dollars and cents, not in percentage—which was obtained in 1940 (box, page 21).

• **Alternate Formula**—But OPA still has one gimmick up its sleeve—an alternate formula which it can apply to products with an especially high 1940 markup. This formula, the industry margin formula, provides: The unit price must equal the present unit cost plus the percentage margin obtained in 1940 on all products of the industry—including the low-margin products. Notice what happened to the cats in the hypothetical example.

As it realizes the complex and unpromising nature of the Barkley formulas, industry is more and more pinning its hopes on the decontrol procedure. Whether this, too, will prove an empty hope depends eventually on the attitude of the Decontrol Board, but all applications on industrial products must start through OPA.

• **Must Provide Details**—Between now and January, the price agency on its own initiative will decontrol products it considers unimportant to the cost of living and doing business. Until then it will consider no applications based on

unimportance. Applications for decontrol must be based on a claim that the supply of the product exceeds or equals the demand, including demand for inventory.

Applicants will be required to provide detailed data on current and prospective production rates as compared with those in 1941, labor and material supply prospects, analyses of demand including figures on inventories, new orders, cancellations, unfilled orders, and ratios of unfilled orders and inventories to shipments—all for current and 1941 periods and broken down by types and price classes of the product as well as regionally.

• **Delays Likely**—Decontrol petitions can be taken on appeal to the board, but it will be weeks, perhaps months, before the board has a chance to build up even a small body of decisions to indicate its attitude. Meanwhile, businessmen are finding one small discouraging indicator in the fact that the board is drawing its economic and legal staff largely from Bowles old Office of Economic Stabilization.

OUTSIDE FOR RAIL TALENT

On the theory that familiarity breeds inhibitions, the American Railway Car Institute has gone outside its own industry to pick a consulting engineer to explore improvements in rail freight equipment.

Selected was Palmer Cosslett Putnam of Boston, development engineer who directed the design and development of war equipment.

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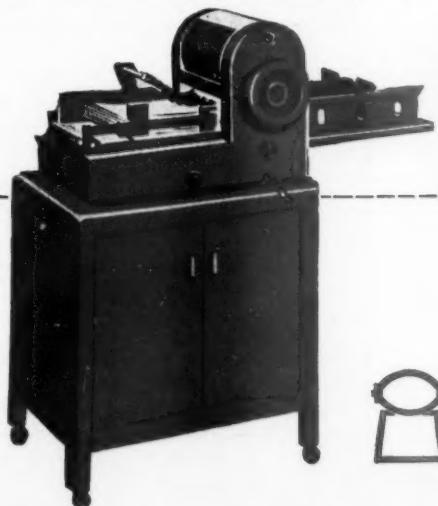


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Illustration Courtesy Gray Marine Motor Company



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Illustration Courtesy Hooper Valve Co.



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... THROUGH CHEMISTRY

At Law Over Oil

Indiana suit over leases in Mink Island area will be test of rights affecting petroleum that is under the Wabash River.

Oil men and conservation authorities will watch with interest a test case involving petroleum drawn from under the bed of the Wabash River.

In a suit filed this summer in circuit court at Mount Vernon, Ind., the Indiana Conservation Commission is attempting to recover what may amount to millions of dollars in royalties. Oil deposits involved are those under and near Mink Island, which lies on the Indiana side of the midriver line that separates Indiana and Illinois.

• **Defendants**—The suit names the Indiana Farm Bureau Co-Operative Assn., the Superior Oil Co., and 17 individual landowners or leaseholders. The leases



PRICE ARBITER

With the prices of industrial goods being decontrolled daily, most businessmen with a price bone to pick will pick it with Eugene A. Messner (above), new head of OPA's consumer goods division. He has responsibility for price-setting on nearly all nonindustrial goods. A textile man for 27 years, Messner is a newcomer to OPA, though he has a name as a promoter of OPA-industry cooperation. For the last five years, he has been sales manager for A. M. Perlman, Inc., New York textile house.

involved authorize drilling on Mink Island acreage and on state-owned river bed adjacent to the island.

The commission sets forth that drilling between the island and the shoreline has been neglected by leaseholders (at the cost of royalties to the state), and asks permission to determine whether wells on Mink Island are so slanted as to be "bottomed on state lands." It seeks an injunction against further drilling on the island.

The commission does not assert that all oil under Mink Island is the property of the state, but it does charge that "at least 50% of the oil being drawn from wells thereon" is from state-owned formations.

• **No Compulsion**—Clayton A. Lynch, who figures prominently as a holder of both above-water and under-water leases, points out that the state riverbed leases contain no "must drill" provisions. On July 15, Lynch announced that drilling, planned "even before the state took action," would be started in the river bed.

The suit, however, was reportedly designed to obtain a court review of all operations in the immediate area rather than to force the drilling of wells on state property.

Recorder Rules

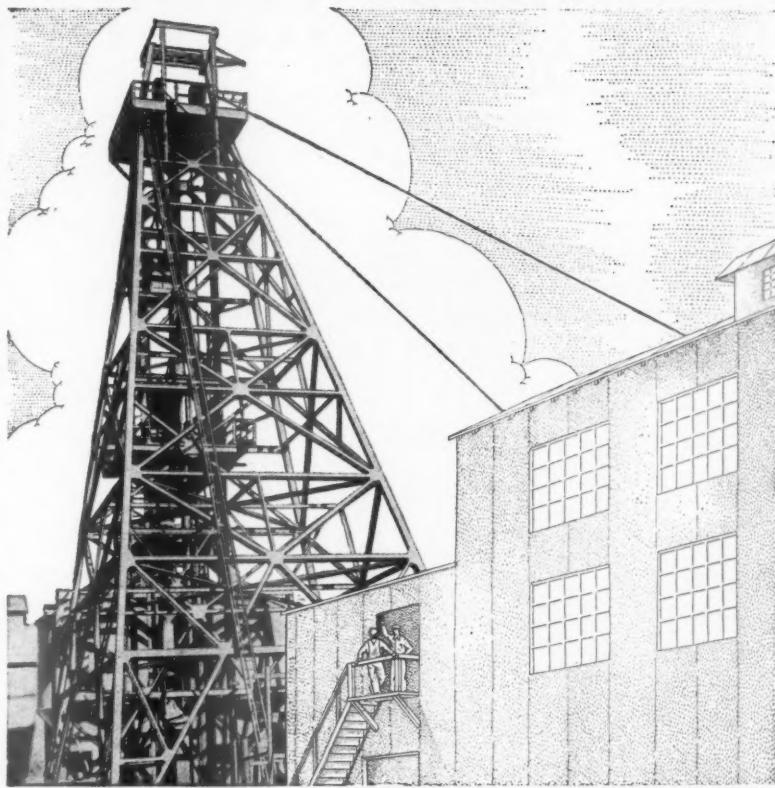
FCC gives tentative O.K. to use of device on public phones, but would require warning tone and listing in directory.

The Federal Communications Commission last week gave its tentative blessing to recording devices for use in regular telephone service—an action which left the recorder manufacturers jubilant and the American Telephone & Telegraph Co. at least temporarily noncommittal (BW—Jan. 19 '46, p18).

• **FCC Cites Need**—The action was in the form of a proposed opinion for revamping rules governing use of telephones to legalize devices for recording phone conversations. Parties concerned have until Sept. 20 to register objections.

Overruling A.T. & T.'s contention that recorders connected to the public telephone system will shake the confidence of phone users in the privacy of their calls, the FCC observed there "exists a real need and demand" for recorders.

• **Calls for Warning Device**—Under the FCC plan, persons whose conversations are being recorded will be given "adequate notice" through an automatic tone warning that is repeated at regular intervals during the course of such conversations. Supplementing this will be



Rope takes the wrap

Tonnage that stays down in the mine doesn't benefit anyone. Bringing it up the shaft speedily is a job for tough, smooth-running wire rope . . . for *Preformed*

Yellow Strand with its ability to take the wrap on a quick-starting, fast-accelerating mine hoist.

★ In your wire rope operations—whether hoisting, drilling or digging—*Preformed Yellow Strand* will prove to be equally responsive. Limbered at the factory, it needs less breaking-in, installs more easily, provides greater resistance to kinking and fatigue. Sling users can boost the flow of work still more with flexible *Yellow Strand Braided Safety Slings*. Investigate these patented aids to production . . . both colored for your protection with a high-visibility *Yellow Strand*.

Broderick & Bascom Rope Co., St. Louis

Branches: New York, Chicago, Houston, Portland, Seattle. Factories: St. Louis, Seattle, Peoria.

**YELLOW
STRAND**

PREFORMED WIRE ROPE • BRAIDED SAFETY SLINGS



It took two wars to move him over



Thirty years ago business firms regarded the auditor as a liability. He was strictly overhead...never considered as an important profit creating business factor.

BUT two wars and many vast changes in the country's economy revolutionized the philosophy of business operation...gave status to the internal auditor—now a positive asset to progressive management. Today the internal auditor...vital liaison between policy and practice...checks each of the complexly interlocked phases of the business

operation. He sees to it that policies passed in the directors' meetings are carried out in the factory and the offices. He finds out whether the paper-plausibility of projected plans is confirmed by actual operating conditions. A profitable man to have on the management's payroll...the internal auditor serves best when he has ready access to an abundance of fresh reliable facts.

McBee is not an auditing firm...but with products and methods evolved in 40 years of experience, aids the internal auditor by making necessary facts available faster.



THE McBEE COMPANY

SOLE MANUFACTURERS OF KEYSORT

295 Madison Avenue, New York 17, N.Y.... Offices in principal cities.



BIG STEEL DEAL

When Brig. Gen. John J. O'Brien (center), deputy administrator of War Assets Administration, received from Max D. Howell, vice-president and treasurer of U. S. Steel Corp. of Delaware, checks totaling \$77,490,375, the transaction closed two of the largest surplus war plant sales yet made. For \$65,000,000, U. S. Steel subsidiary Carnegie-Illinois Steel acquired the facilities at Duquesne, Homestead, and Braddock, Pa.; some \$12,000,000 was in initial payment for the vast Geneva plant, represented by Merrill Russell (right), secretary of the Geneva Steel Corp.

a directory listing plan, under which asterisks or other special indicators will be placed alongside the names of subscribers having recording devices.

FCC also held that only recorders which are physically connected to the telephone line should be permitted. This rules out both the acoustic type, where a microphone is placed near enough to the phone to catch conversations; and the induction type, which utilizes an induction coil to pick up the impulses from the bell box—without any physical connection.

• **States Have Voice, Too**—Connecting equipment, but not the recording apparatus itself, should be provided, installed, and maintained by the telephone companies, in the commission's view. This would enable present manufacturers to supply the recorders—although it is considered likely A. T. & T.'s manufacturing subsidiary, Western Electric, will quickly jump into this field if the situation warrants.

A. T. & T. still has one "ace in the hole." The FCC action can govern only interstate and foreign message toll service. Still to be reckoned with are numerous state commission edicts against use of "foreign devices" attached to telephones.

PERMANENT MAGNETS MAY DO IT BETTER!



Seismometer assembly, showing magnet and bakelite bobbin at top.

Through the aid of the permanent magnet the seismometer searches for rich strata hidden deep below the surface of the earth.

- A. Dynamite explosion
- B. Reflecting bed
- C. Seismometers
- D. Shooting Truck
- E. Recording Truck

Galvanometer Assembly

Data furnished by United Geophysical Company, Inc., Pasadena, California

PERMANENT MAGNETS HELP REVEAL HIDDEN RESOURCES

Permanent Magnets, once as mysterious as the hidden riches that lie beneath the earth's crust, now aid the geologist's seismometer in exploring the unknown. Permanent magnets serve science, industry and medicine in modern precision controls. Silent and unseen, they contribute their "packaged energy" to the vital functions of radio, telephony, telegraphy, radar, and facsimile transmission.

Millions of magnets serve us daily... ranging in size from the tiny midget in the hearing aid to the giant radar magnet... each doing some job

better. More than 24,000 magnet applications have been made by The Indiana Steel Products Company, largest sole manufacturers of Permanent Magnets.

Our engineers will gladly consult with you on any special magnet application. Perhaps permanent magnets may do some job or process better in your business or industry. For complete information on magnetic applications, materials, and technical data, please write for our "Permanent Magnet Manual." Your request will receive our prompt attention. ©1946-The Indiana Steel Products Company

★ THE INDIANA STEEL PRODUCTS COMPANY ★

PRODUCERS OF "PACKAGED ENERGY"

6 NORTH MICHIGAN AVENUE • CHICAGO 2, ILL.



SPECIALISTS IN PERMANENT MAGNETS SINCE 1910

PLANTS: { VALPARAISO, INDIANA
 STAMFORD, CONN. (CINAUDAGRAPH DIV.)

Not for Art Alone

Metropolitan Museum will expand and improve its services to industrial designers. Era of research by machine foreseen.

A major concern of museum management is to prevent exhibit institutions from becoming static monuments dedicated largely to curious strollers. The need is to find active employment for accumulated lore and treasure in the economic life outside. New York's Metropolitan Museum of Art is making this an important part of its postwar plans.

A large percentage of the seventy-fifth anniversary fund of \$7,500,000 now being raised for improvements will be devoted to expanding the Metropolitan's commerce and industry activities. Object is to make the museum's masterpieces more readily available for designers of goods and the packages in which they are displayed.

• **It's a Big Business**—Some 21,000 Americans work at designing new products. The cost of their labors has not been segregated from the general classification of industrial research which in 1940 employed 70,000 with an annual expenditure of \$250,000,000 to \$300,000,000. Under present conditions a designer assigned to a new product is forced to dig out source drawings or other historical material by plodding



Any similarity between the helmet of 1527 and the flak helmet of 1945 is no coincidence. The modern one was designed in the Met's armorer's shop.

through mountains of incompletely classified records and by prowling the hard floors of exhibition halls.

The Metropolitan plans for reorganizing its handling of this problem are expected to save 25% of the cost of design research. Thomas J. Watson, head of International Business Machines Corp., is general chairman of the museum's anniversary committee. Keith Martin has been loaned by I.B.M. to modernize the Metropolitan's machinery for aiding industrial design.

• **Research by Machine**—He seeks to impose some of the drudgery of research upon machines. At present, a designer working on a new line of shoes must get his historical and artistic background material piece by piece. Martin foresees a time when such a quest will become largely a machine operation. A key will be placed in the sorting apparatus, a button will be pressed, every card relating to shoes will drop out as the reference file is rapidly scanned.

At present the Metropolitan has no special department to aid designers or other industrial users of the museum's exhibits. The artist or researcher has to depend on his own initiative now, with what help he can enlist from librarians and other staff members of the museum.

• **Aid for Army, Too**—Contribution of museums to textile and wallpaper patterns or to fashions in women's apparel is generally recognized. Few realize that the Metropolitan has contributed to the design of war apparatus. When the British-type helmets used by Americans in the first World War proved unsatisfactory, U. S. Army Ordnance turned to the exhibits of medieval armor in the Metropolitan in a search for a better model.

Bashford Dean, the museum's curator of arms and armor, was given leave to join the Ordnance Dept. and aid the development. The result was something of a compromise between the headpiece of an ancient knight and modern football headgear. It got into production too late for the first conflict but laid the foundation for the G.I. helmet of World War II. The millions of these produced after the model was standardized (in 1941) were of tougher steel, gave better protection to the back and sides of the head. A special helmet



Museum inspired: a Lily Dache creation (left) from an old European bridal crown; a modern dress print from Pablo Gargallo's famous fighting rooster.



One of a series describing Cyanamid's many activities.

HERE'S *Wool* THAT WON'T SHRINK

WOOL ON SHEEP won't shrink, no matter how wet it gets. Nature takes care of that. But it's an entirely different story after the wool is clipped from the sheep, processed and made into fabrics. We all *know* how it shrinks and felts when washed!

This age-old problem of controlling wool shrinkage has been solved—by chemistry. For Cyanamid's Textile Resin Department has developed a shrinkage control process by which wool and wool blends can be made to retain their original appearance and shape after many washings or trips to the cleaners!

LANASET* Melamine Resin, a product of Cyanamid's research, makes this process possible. LANASET Resin stabilizes or "sets" the wool fibers and protects their

natural resiliency, texture and appearance. It holds the individual fibers in the shape in which they are spun into a yarn, so that they resist their natural tendency to curl up and cause shrinkage. It also greatly reduces the tendency of wool to felt and fuzz.

Here is a development that is already increasing the market for wool products by giving purchasers greater value, serviceability and convenience—in wool dresses, suits, sweaters, sportswear, blankets and other articles. The knitted wool sportswear shown above is LANASET Resin Processed and is among a whole collection of items appearing in better stores this fall.

LANASET Resin is another example of how Cyanamid chemistry, applied in many fields, is improving the value of materials and products used in everyday living.

*REG. U. S. PAT. OFF.

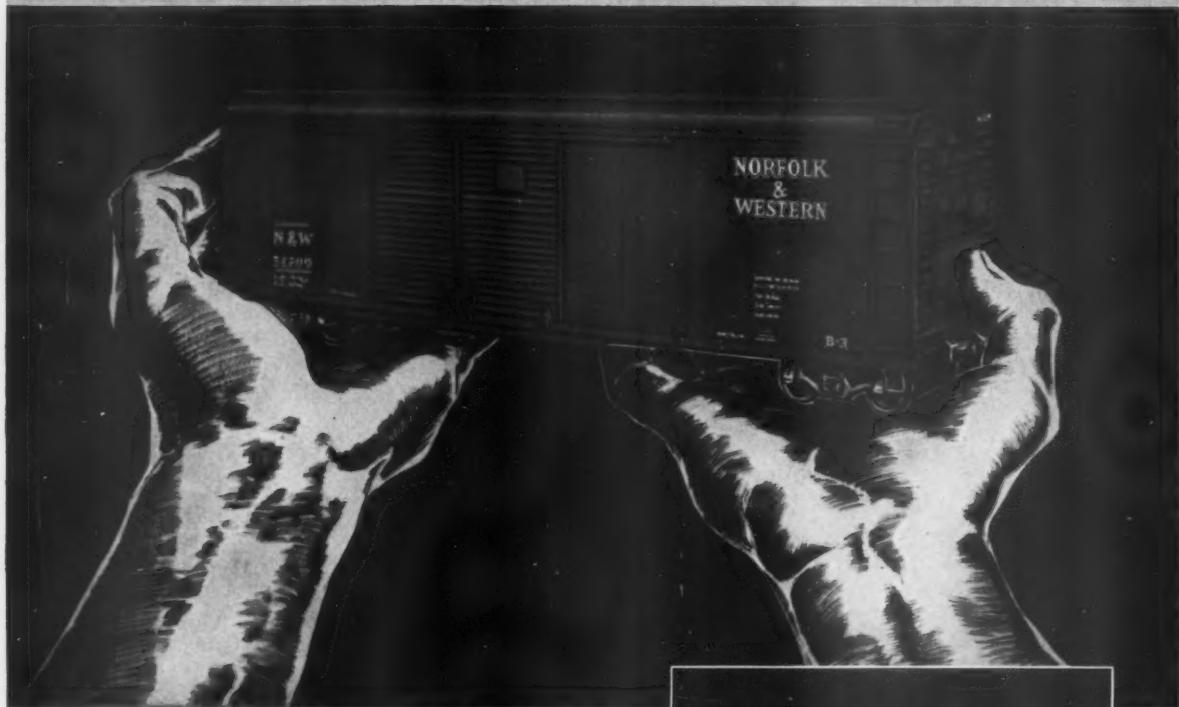


American
Cyanamid Company

30 ROCKEFELLER PLAZA, NEW YORK 20, N.Y.

MOLDING THE FUTURE THROUGH CHEMISTRY

It Was Made for You...



There is drama in the life of freight cars. To the average person they may look no more impressive than painted boxes on wheels. But there is good steel in them and strong timber. And they are designed and built by experienced engineers and craftsmen to do a job . . . to haul anything anywhere rails run.

Today they may be on lonely sidings; tomorrow they will be parked beside the humming assembly lines of America's greatest industries.

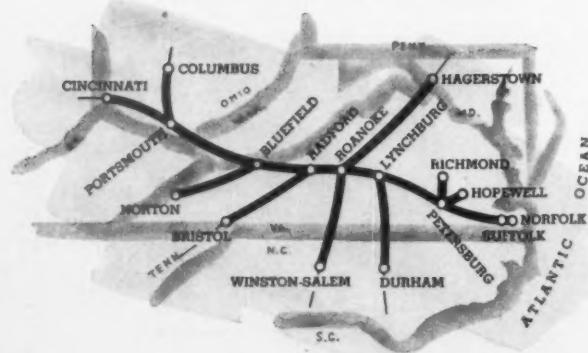
"Peanuts" may be the manifest today; tomorrow they will be speeding across the country loaded with rare products from distant lands. But whatever their load, they rush on and on and on. Over mountains, across canyons, through snowdrifts, steaming swamps, scorching deserts or down long valleys beside quiet streams.

**WHERE DO YOU
WANT IT?**

But whether their job is tough or pleasant, dull or romantic, they do it well . . . because they are designed for it, built for it, and maintained for it.

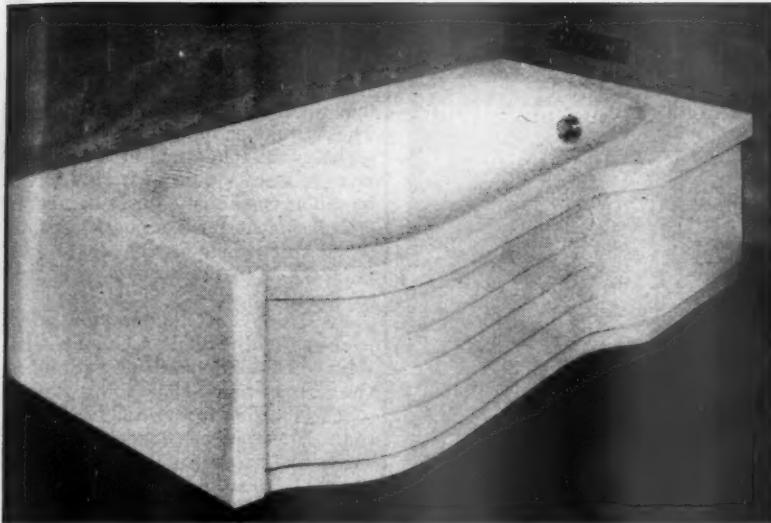
The Norfolk and Western has thousands of modern freight cars. Some of them are yours — built to do your job. Where do you want them?

N. & W. representatives are located in most principal cities — call or write them for traffic suggestions.



**Norfolk
and Western
RAILWAY**

PRECISION TRANSPORTATION



After research at the Metropolitan into bathing habits of the ancients, Van Doren, Nowland & Schladermundt have designed Sears, Roebuck a bathtub that reportedly overcomes many traditional flaws. To gain length, the sump runs diagonally, leaving enough edge for seats on one outer and one inner edge. The design, hewing to standard length, makes the tub readily replaceable in existing alcoves, is narrow enough to permit easy cleaning of surfaces against the wall. Its steel-stamped core is reported 25% cheaper to produce than cast iron and its weight—100 lb. against 300 lb. for conventional tubs—makes for lower shipping costs. Retail cost will be less than \$50.

made for the Army Air Forces had side flaps to provide for earphones.

• **Back to the 15th Century**—Without the visor (discarded to accommodate the flyer's oxygen mask) the air fighter's helmet looks remarkably like that of Galiot de Genouilhac, which is one of the Metropolitan's prized pieces. This custom-made job protected the pate of Francis the First's master of artillery.

Metalworkers who turned out armored vests for combat flyers had no way of knowing that the design went back to the fifteenth century brigandines (vests of steel scales) in the Metropolitan Museum. The commando dagger, with its guard in the form of brass knucks, is obviously the spiritual offspring of a homicidal instrument in one of the exhibit cases.

Museums aided American industry when the call went out to cast intricate shapes that were difficult to forge or machine. Dentists were using a wax process instead of conventional molds to make complex inlays and bridges. It was also employed by jewelers to create designs too involved for ordinary techniques. Guided by museums, the researchers traced this procedure back to Benvenuto Cellini, brilliant craftsman of the Renaissance.

• **Idea Has Wartime Uses**—In one of the most exciting autobiographies of all time, this bombastic genius describes how he used wax to form the intricate

mold for his masterpiece, Perseus with the head of Medusa. He made a wax model of the statue, then clothed it in clay. After reinforcing this clay "tunic," he heated the outside. This hardened the clay but melted the wax core which he drew off. The hard clay remaining provided a perfect mold for the casting of the finished figure.

A derivation of this system was used during the recent war to reproduce tiny precision parts for small electric motors, instruments parts, and camera equipment, also blades on exhaust superchargers and jet engines (BW-Apr. 6 '46, p64).

• **Bathing Habits Studied**—Turning from the warlike to the domestic, the firm of Van Doren, Nowland & Schladermundt, New York industrial designers, gives much of the credit for its new Sears, Roebuck & Co. bathtub to the Metropolitan (above). This is a stamped-steel, porcelain tub which represents two and one-half years of research and has just gone into production.

The new tub provides a seat on the outside where the housewife can sit to wash the baby, and a shelf on the inside where a shower bather can sit to wash his feet. Before making a use and motion study, the designers went back through the Metropolitan tomes and prints to determine the most satisfactory bathing habits that were devel-

Pfaudler
Glass



in
HEAT
EXCHANGERS



in
PIPE AND
FITTINGS



*Enables You to
PROCESS IN COMPLETE ABSENCE
OF METAL!*

It is now possible to process the strongest of acids in the complete absence of metal. If corrosion or product purity troubles you, Pfaudler can help you.

Pfaudler glass, fused into steel for strength, is resistant to all acids, except hydrofluoric, at high temperatures and pressures. The catalytic effect of metal detrimental to yield and quality is thus avoided. Any Pfaudler unit may be shifted from one process to another. This flexibility is valuable in these days of quick changes. No other material of equipment construction is as widely resistant to acids nor as adaptable to design requirements. May we show you how to take advantage of this? THE PFAUDLER CO., Rochester 4, N.Y.

Pfaudler
ROCHESTER 4, NEW YORK
WORLD'S LARGEST MANUFACTURER OF
GLASS-LINED STEEL EQUIPMENT



**In BLACK and WHITE,
HUBER RESOURCE-fulness
STANDS OUT!**

HUBER CONTRIBUTES to the "readability" of your favorite magazine by producing not only the printing inks for which this company is internationally famous, but also the prime white ingredient for the coating of fine paper stock. This substance—Kaolin clay—provides the lustrous whiteness that characterizes every well-printed page.

Huber Kaolin deposits in South Carolina and Georgia, among the largest in the world, deliver thousands of tons of refined clay each month to the paper making and rubber industries.

The *resource-fulness* of the company's operations, however, has extended its service into many industrial fields. Huber carbon black, which makes jet black printing ink, is also the essential wear-resisting element of tire treads and rubber goods. Other Huber products include natural gas, petroleum and rubber chemicals. Top-notch quality is achieved because Huber controls most of its natural resources and every step of production *from the ground up!*

J. M. HUBER, INC.
New York; Chicago; St. Louis;
Boston; Huber, Ga.; Graniteville and
Langley, S. C.; Borger, Texas



PRINTING INKS, PETROLEUM, NATURAL GAS AND GASOLINE,
CARBON BLACKS, KAOLIN CLAYS, RUBBER CHEMICALS

opened by mankind throughout the ages.
• **Designs Lifted**—The Metropolitan has long been a happy hunting ground for artists scouting out decorative patterns that could be adapted or lifted bodily. Thus the design of an ancient Egyptian necklace was transferred to the cover of a vanity case. A unicorn from a forgotten nobleman's coat of arms became an embellishment for a cigarette case. In recent years emphasis on packaging has given the adapters a new outlet for their ingenuity.

An example of the effect on profits is offered by the Shulton Co., manufacturer of cosmetics. Starting with an investment of only \$10,000, this concern sent its designer to the American Wing of the Metropolitan for packaging ideas. From this developed the Early American Old Spice line of toiletries. Salesmen booked orders on the strength of the package designs. From a first year's



Evolution of a Persian perfume bottle (above), through a researcher's sketch (below), into a marketable offering of Steuben Glass typifies the museum's role in industrial design.



Micarta

CAN TAKE THE WHOLE WORKS



Micarta can be fabricated in *mass production quantities*—to close tolerances usually associated with metals—and faithfully retain its machined dimensions.

This tough, workable material has a combination of qualities which makes it superior to metals or wood—in many applications.

In addition to its workability, Micarta—

RESISTS HEAT AND COLD—unaffected by temperature variations from 230° F to 112° below zero.

RESISTS MOISTURE AND CORROSION—withstands water submersion or mild acid solutions.

IS STRONG—the strength of aluminum at half the weight.

TAKES PAINT FINISH—can be painted for product eye appeal.

CAN BE MOLDED—several grades are suitable for post-forming into products such as radio cabinets, refrigerator inner door panels, luggage, etc.

Westinghouse is equipped to supply Micarta, molded, formed or *completely fabricated*. Investigate Micarta for application to your product. Call your Westinghouse office for a Micarta Specialist. Or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

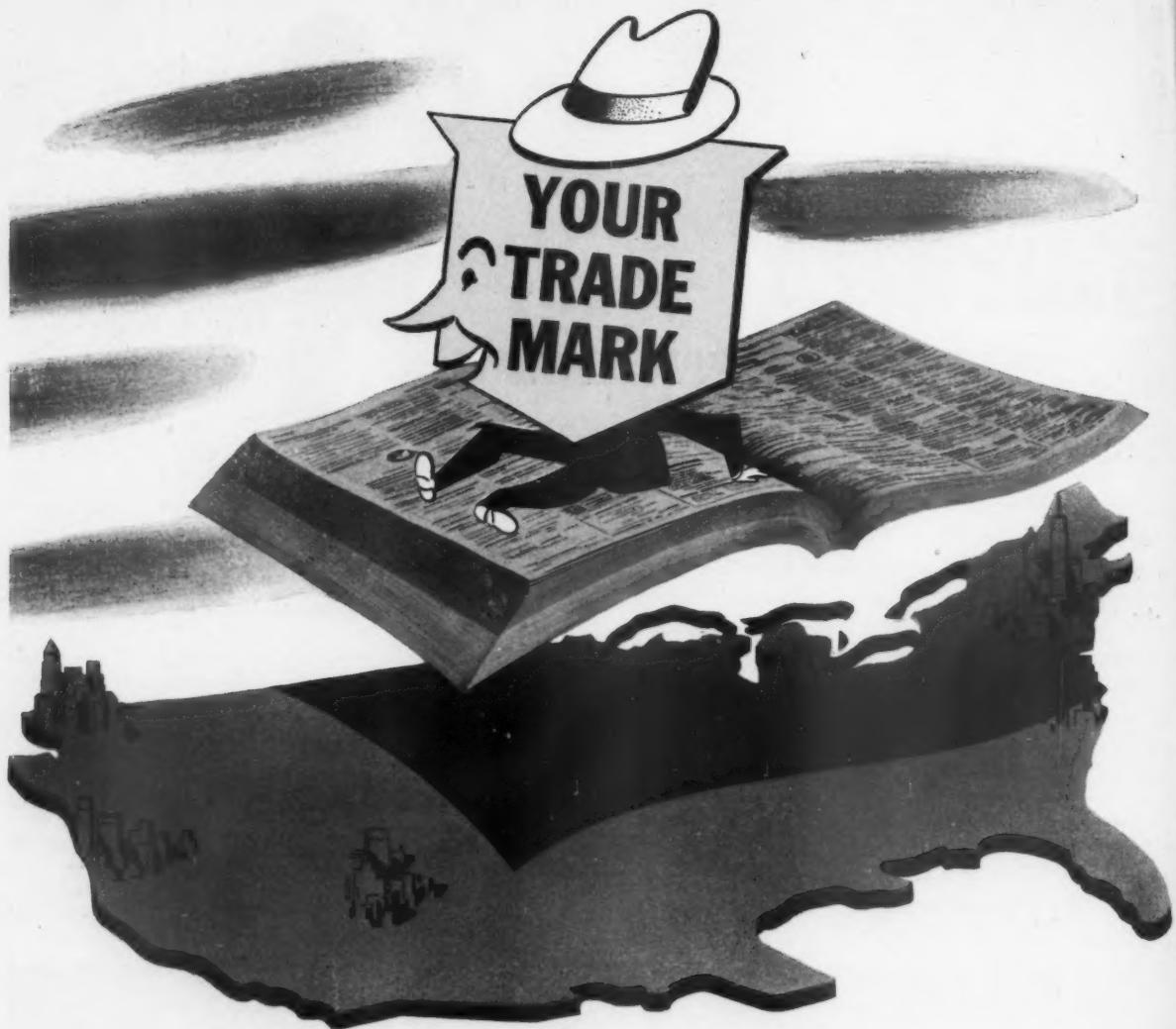
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Micarta



Send for the Micarta Data Book. Ask for B-3184-B.



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FROM coast to coast Classified sections of Telephone Directories — 20,000,000 strong—are hard at work helping prospects to find trade-marked products and services.

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From business men, housewives, homeowners, purchasing agents and many others comes a constant flood of such questions. Answers from the Classified save them time and trouble. That's why this informative book is America's most popular aid to buyers.



gross of \$77,000, business grew in three years to \$3,300,000.

• **Foreign Rivalry**—A constant patron of the Metropolitan is the maker of Volupté compacts, lipsticks, and cigarette cases. Its items retail for up to \$500. About 10% of prewar sales were for export. England and France were good customers. The management emphasizes the fact that U. S. companies going after foreign business will soon be faced with competition from France and other countries whose artistry is traditional. American manufacturers will have to match or surpass the attractiveness of goods offered by foreign rivals if they are to hold such markets.

Surplus Tools

Disposal problem is still serious despite a sharp cut in estimates of government-owned units yet to be marketed.

When machine-tool builders were hitting a record-breaking clip during war days, they shuddered as they thought of the postwar surplus problem. They foresaw an unassimilable volume of used government tools competing with their own new machine tools.

• **Problem Still Serious**—If latest predictions of the War Assets Administration are correct, builders should be able to relax a bit. The big news is that WAA privately is voicing the belief that only 10% to 20% of general-purpose machine tools owned by the government are yet to be declared surplus. In other words, 80% to 90% of the total to be offered in the open market already are for sale or have been sold.

On this basis, certain conclusions are inevitable; and they give the surplus situation a somewhat less sickening aspect for the machine-tool industry though the problem still is very serious. The number of machine tools to be sold as surplus, or made available to users, will not be over 325,000 units. The industry had thought it would be 400,000 as a minimum, possibly as much as 600,000 (builders turn out 40,000 new machines in a cracking good peacetime year).

Government holdings of machine tools apparently never were as enormous as either Washington or the industry figured. First inkling that this might be true was the Reconstruction Finance Corp.'s hurried inventory of its machine-tool ownership in 1945 which showed 239,000 units. RFC had guessed that the total would be 400,000 to 500,000.

• **To Retain 80,000**—Best estimates now put the government's peak ownership of machine tools at slightly more than

400,000 units. Of that number 75,000 to 80,000 will be retained by the armed services as safeguard in a future emergency. Army Air Forces and Navy Bureau of Aeronautics would keep 66,000.

Up to now machine-tool surplus declarations have added up to over 266,000 units. The bulk of machines still undeclared is in a relatively small group of very large plants, and a high percentage of them are special-purpose machines (which are unadaptable to most civilian uses and hence no threat to new machine-tool sales).

• **Missing Factors**—Chief trouble about assessing the surplus machine-tool problem, despite all of these figures, is that certain solid facts are missing. WAA does not have a count of all the machines it possesses. It admits that an indeterminate number of warehouses and disposal centers have slipped in without being recorded. Moreover, WAA does not possess a complete inventory of its holdings by types and sizes. It does not have a record of how many machine tools were delivered to government plants during the war. Though RFC's spot check is regarded as satisfactory, similar Army and Navy surveys are looked upon skeptically because many tools not classed as machine tools (for instance, portable tools) were included. The over-all number of surplus machine tools probably never will be exactly known.

No matter what the final total, WAA is up to its ears in the stiff job of selling what is already available. It has on hand 51,000 machine tools in long supply, among them 3,000 cylindrical grinders. It will sell them wherever it can, in this country or for foreign delivery (machines in tight supply are sold only for U. S. delivery).

• **Foreign Buyers Wary**—So far foreign users have shown almost no interest in surplus tools; they want new ones tailor-made for the particular operations involved. Anyway, builders aren't keen about surplus machines of their own make going abroad unless first carefully inspected and rebuilt if necessary. After World War I many machine tools in bad condition were unloaded on unsuspecting foreign users, giving a black eye to the particular machines exported. It took years to live down what happened then.

WAA is doing much of its selling of machine tools through licensed dealers who are paid 12½% commission on sales. Requirements to qualify as a dealer are lax. In one large city, typical of others, only 40 out of 188 licensed dealers have made any sales, and only 20 of the 40 are doing a real job. Nevertheless experienced new and used machinery dealers, who have handled most of the dealer-sold surplus machine tools, have done a whopping business



Faithful, down to the last rivet head...

This model American Flyer railroad coach by A. C. Gilbert Mfg. Co. demonstrates how beautifully you can reproduce the most intricate designs and surface detail... with Monsanto Plastics.

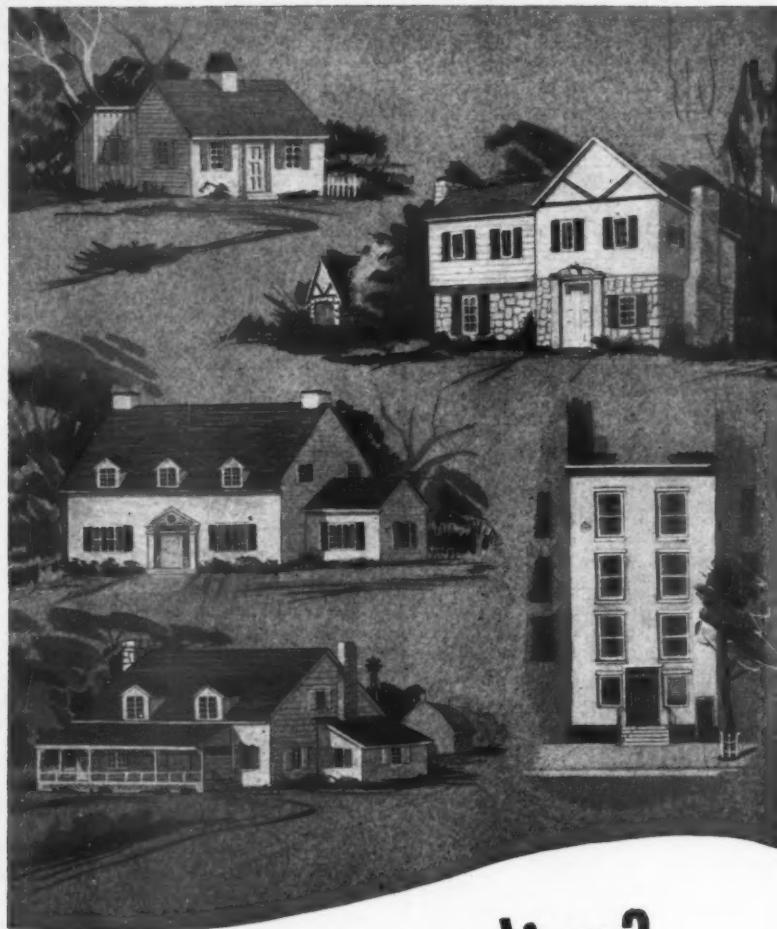
With molded plastics you get materials and methods that provide mass production of third dimension detail that is unmatched in perfection or economy by metal stampings, die casting, forging... or machining. (Remember, you pay for designing skill in plastic moldings just once... in the original die.)

Such clean fidelity is more than a technical achievement... it's a proved sales-producer... in toys, personal accessories, writing instruments, art objects, premiums of all kinds.

Lustron* and Fibestos,* Monsanto's injection molding plastics, offer you the ability to take real punishment, a full range of beautiful colors, and genuine economy. Other Monsanto Plastics offering this same faithful reproduction in combination with other properties are also available. Complete data on request: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

*Reg. U. S. Pat. Off.





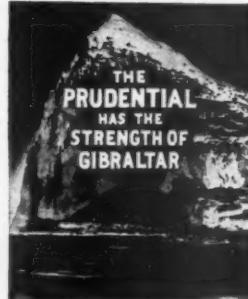
Where do you live?

It doesn't matter what state you live in . . . or whether your house is in a valley, high on a hill, on a farm or in a city, town, or village—The Prudential may well have special meaning in the place that you call home.

For more property and home owners in this country have been helped through Prudential mortgage loans than through those of any other company.

To more than 23,000,000 Prudential policyholders, this is particularly important. It is one of the many factors which drive the roots of this company down deep into the life of all America.

It is a symbol of soundness . . . another contributing reason why so many people look first to The Prudential for protection. The Prudential Insurance Company of America, Newark, N. J.



COOPERATION KEYNOTE

In addition to more substantial inducements—such as materials priorities—to build for veterans (BW—Jul. 27 '46, p15), Housing Expediter Wilson Wyatt (above) issues placards with a patriotic flavor for construction sites. The red, white, and blue signs signalize the builders' intent to give veterans first choice on the new dwellings. The blank in the price allows for various types of construction—and perhaps for any subsequent "give" in veterans' rent ceilings, now held to \$80 a month.

since Jan. 1. Dealers have disposed of \$82,000,000 of machines (original cost) for \$39,000,000.

• **Irrksome Delays**—Bitter complaints still are being made by machine-tool people and by prospective buyers because of WAA's deficiencies; one district office does not know what the others have listed as surpluses. Paper work results in exasperating delays in securing delivery after sales have been completed. Dealers have had trouble getting into warehouses and depots to inspect machines. And WAA salesmen, in the main, do not know machine tools.

Despite these troubles, WAA is steadily getting better organized for the selling task which its own people estimate will continue critical for the next two years. It is now planning to use panels of experienced machine-tool men in each regional office as advisers. It is making every effort to cut red tape. One thing it would like to do is to induce private manufacturers with disposable surplus machine tools to sell them through WAA. If this were done, chance of low-price auction-sale competition would be reduced. Some WAA officials laugh off this proposal, for they figure that it will be unacceptable to

outside manufacturers with surpluses. • **Plans for Scrapping**—WAA is setting up in each field office men responsible for carrying out a policy of scrapping machines which cannot be sold, which cannot be used by nonprofit educational institutions, and which would cost more to be stored than they would bring if sold. Thus far little or no scrapping has been done (regulations provide that any machine over 25 years old is to be scrapped).

Efforts of educational institutions to secure machine tools at a nominal price have been virtually futile, though some machine-tool builders and educational associations have done all they can to promote the idea. There is some hostility to the plan inside WAA by officials who say that most machines needed by schools are in short supply (toolroom type of equipment) and production machines available are not adapted to teaching purposes. The Dept. of Education of the Federal Security Administration has placed men in every WAA regional office to help schools get machines they want, but the scheme doesn't work. Some observers blame the schools for the unsatisfactory results, declaring that their officials are not aggressive or persistent enough in their efforts.

• **Competition to Pick Up Surplus** sales will run into increasing resistance as time goes on. Big buyers have taken their pick already. Two important automobile makers, for instance, have bought 80% to 90% of all the surplus machines they expect to buy. There will be less variety to choose from, and chances are that machines remaining in surplus over a long period will not be in as good condition as those earlier declared surplus and sold. Greatest factor militating against surplus sales will be the improved, more highly productive new machines introduced by machine-tool builders.

GIRDLER BONUS RETRIEVED

The \$51,000 bonus paid by Republic Steel Corp. in 1940 to its chairman Tom M. Girdler, in addition to his salary of \$175,000 that year, has been disallowed and ordered returned to the company by Common Pleas Court Judge Stanley L. Orr at Cleveland.

Republic Steel directors, according to Judge Orr's ruling, exceeded their authority in ordering the payment of the extra \$50,000 since the "increased remuneration depended not upon the efforts of the defendant but upon the profits of the business."

The court ruled in a suit brought by a stockholder now deceased. The action was revived by her son. This charged that Girdler's bonus in 1940 constituted a "reckless dissipation of Republic's assets."

MAIN STREET



Here comes the Chushu train

Near Chushu, in Korea, you might nowadays have to wait at a trail crossing to let a train like this one go by. It's a slow freight, to be sure . . . but as a symbol of re-awakening commerce in the Orient, and of opportunity for American industry, it's pretty exciting.

Even now, at the great ports of Seattle, Tacoma, and Portland, the first trickle of Manchurian furs, Chinese teas, Japanese silk and Burmese rubber is coming onto the wharves. And that calls to mind the fact that—regardless of present postwar confusion—

the day must come when millions in Asia will climb the path of progress with American tools, in American shoes.

Northern Pacific has been looking ahead, and planning ahead, to expedite import-export traffic. At Seattle, Portland, Chicago and New York we have men specializing in foreign trade. They know about customs, tariffs, available cargo space, ship sailings and arrivals. Let this N. P. import-export service prove to you that the Main Street of The Northwest extends across the Pacific, too!

NORTHERN PACIFIC RAILWAY



He had the answer...

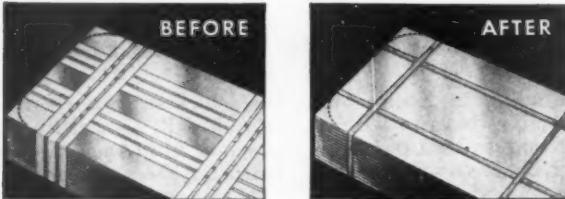
AND CUT COSTS
WITH BAUER & BLACK INDUSTRIAL TAPE



**A manufacturer of plastic panels called in a
Bauer & Black Technical Consultant for help...**

PROBLEM: To bind sheets of plastic during shaping operations. A paper masking tape, with relatively little tensile strength, had been used. It had to be wrapped several times around the sheets to achieve enough strength to resist pressure.

SOLUTION: The Consultant advised Bauer & Black Industrial Tape No. 120—a cloth tape with firm adhesion and great tensile strength. It bound panels securely, at considerable saving, for No. 120 cost less than paper tape, and less of it was required.



YOU CAN PROFIT, TOO

A Bauer & Black Technical Consultant will be glad to look over your operations to speed production, improve your product or cut costs, **WITHOUT OBLIGATION TO YOU**, through the use of Industrial Tape. Write Dept. 68 today to have him call. Ask also for our stimulating free monthly *Automotive News Letter*. You'll enjoy it.

WE HAVE A FULL LINE OF TAPES SUITED FOR THESE USES:

General Shop Use: tying, bundling, repair. **Protection:** of tools, finished surfaces, hands. **Use as a Tool:** riveting tape, masking. **Incorporation in Product:** electrical tapes, identification markers, miscellaneous applications. **Packaging:** export shipping, store dispensers, moisture barriers, deep-freeze use, etc.

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Industrial Tape
PRESSURE SENSITIVE ADHESIVE

Production Short Cuts to Reduce Costs • Research to Speed and Improve Methods

Barns of Steel

Carnegie-Illinois research indicates vast market for rural structures of type proved in Wisconsin University tests.

Market analysts of United States Steel Corp. foresee a \$2 billion annual market in farm buildings for the next ten years if farmers use wartime earnings to replace, repair, and modernize the run-down structures which have weathered the years since the mid-1920's on minimum maintenance.

Big Steel's Carnegie-Illinois subsidiary is getting ready to reach for a share of this market next spring. By that time it figures steel should be available for farm construction use.

- **Construction Tested**—Meanwhile, the company is proceeding with research into the possibilities of steel farm buildings.

The corporation's steel buildings have been under test at the University of Wisconsin for several years. Early this month the university's agriculture school issued a summary of results which make this type of construction look excellent for the big dairy farms and the corn-livestock farms that constitute the largest single chunk of Corn Belt agriculture.

The experimental farm group includes three major types of dairy barns, a milking parlor, two types of hay-storage structures, a silo, a granary, a milk house, an office, and a change room for the herdsmen.

- **Fire Hazards Reduced**—Dairy farmers who first visited the buildings in the early 1940's disclosed an important sales obstacle: They voiced reluctance to keep fine cattle in metal barns, on the assumption that these would be hot in summer, cold in winter. But experience with the heating value of manure shows that the cow's straw bed in even the one uninsulated barn holds at 90 F or above when outdoor temperatures range down to -26 F, and that milk production holds at satisfactory levels.

The insulated structures use insulation wallboard fastened to the wall studs, then ceiled in with inner walls of galvanized sheets. Ceiling insulation uses rock-wool between roof and ceiling.

A major advantage claimed is that steel buildings are not only fire-resistant but also eliminate lightning hazards.

- **Prefabrication**—The metal provides better protection against destructive pests, and otherwise makes it easier for the dairyman to maintain sanitation at levels required by metropolitan fluid-milk codes. Properly cared for with an

Your scrap helped America win in '45



She needs your scrap to make steel NOW

THE present critical shortage of scrap is a serious threat to steel production.

America was literally picked bare of scrap during the war years. In recent months, industries which usually generate large quantities of scrap have been operating at low level or not at all. The result is that scrap inventories at the mills are little better than in 1942 when some open hearth furnaces were forced to shut down for lack of scrap.

Every user of steel has a direct stake in the scrap shortage. Without more

scrap, producers cannot furnish you the steel needed so urgently now.

If you want steel, you can help yourself to get it by doing your bit immediately to start more scrap into channels that serve the steel mills.



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Indiana is 55.1% Urban

IN Indiana the cornfields of Iowa meet the steel mills of Pennsylvania. The State's economy is excellently balanced between industry and agriculture, making for a stability that protects against depressions.

Note that the greater percentage of Indiana's citizens live in cities and towns. This rise in urban as against rural population has been steady and healthy, as a State originally agricultural has increased its industrial production. The reasons for this increase in manufacturing are numerous and logical; among the most important of them is that Indiana is *handy* to everything you need in your business. Add to that a favorable labor situation, and you will see why you should consider Indiana as your industrial home.

INDIANA

Your LOGICAL
Industrial Location



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FREE BOOKLET
Get the Facts

INDIANA DEPT. OF COMMERCE AND
PUBLIC RELATIONS.....DEPT. B-15
STATE HOUSE • INDIANAPOLIS, INDIANA



Steel farm buildings (above, below) have been subjected to years of tests on Carnegie-Illinois Steel's experimental farm at the University of Wisconsin. Now Big Steel is preparing to approach the huge rural market commercially.



occasional coat of interior paint—preferably sprayed—the steel buildings are expected to outlast wood.

Experience indicates that prefabrication may prove most satisfactory for the smaller buildings such as granaries, implement sheds, and milkhouses. Larger buildings, including barns and hay storage, seem to offer the best possibilities in on-site all-welded construction.

Optimistic note: There are three times as many trained welders as carpenters, 1,500,000 to 427,800.

• **Cost Comparison**—Cost studies indicate that all-steel farm buildings today can be erected for something less than comparable wooden buildings. The farmer in search of a new barn right now has a better chance—though still not too good—of finding the requisite lumber than steel.

U. S. Steel has no intention of going into prefabrication of steel farm structures. It plans to develop this tonnage by selling standard mill products to makers of prefabricated units in this field.

The project at Madison has also produced a mass of information about the best and cheapest ways to build in steel. Carnegie-Illinois is currently preparing a set of plans for one-story steel farm buildings. These detail framing and trusses to provide clear spans of 24 ft. to 40 ft.

• **Standardized Parts**—Any building of the Madison group designed for on-site welding can be produced with no less than five and no more than nine sizes

of carbon steel members. Standard angles, channels, light columns, and plates are the principal items. Outer walls are designed for corrugated galvanized sheet, attached with self-tapping screws.

Plans will be made available to welding shops and local builders. Intention is to sell the steel principally through local building material dealers. Other sources for users will be steel warehouses.

A major advantage to the contractor is claimed for steel: Everything to make 40 ft. by 60 ft. one-story buildings, except the concrete footings, can be delivered on one truckload, thus greatly simplifying the builder's parts-chasing problem. For a small building, the contractor will presumably weld up his trusses at his shop, rather than move his welding machine and table to the site. Ten 25-ft. trusses made on-site at Madison required an average of 65 min. to weld, weighed 293 lb. each, were hoisted into place by the welder and two helpers using a gin pole.

ANOTHER FOR RANK

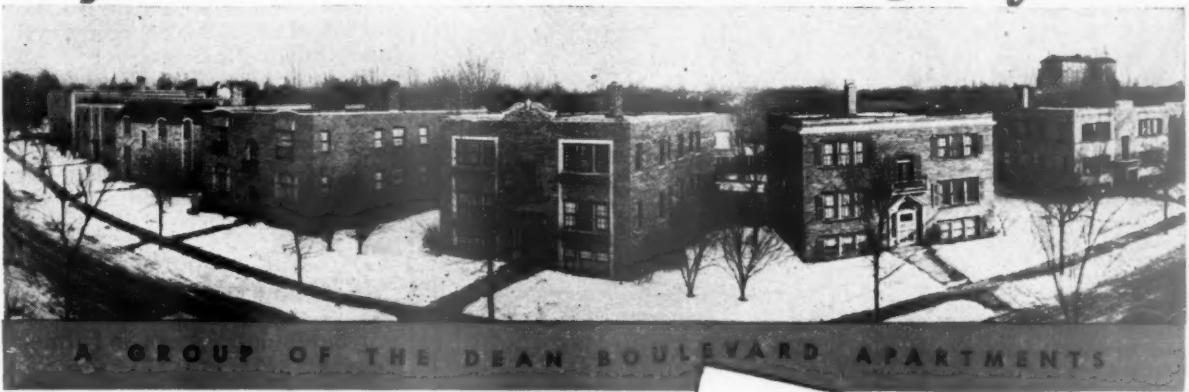
J. Arthur Rank has added another corporate marriage to the string of affiliations on which his movie empire-building seems to be based. With Universal Pictures and International Pictures, Rank has formed a new producing company, Universal International Production, Inc., effective Oct. 1, 1946.

Not so long ago, Universal, International, and Rank formed United World

HONEYWELL

PERSONALIZED Heating Control

Gives Tenants Individual Comfort



A GROUP OF THE DEAN BOULEVARD APARTMENTS

Apartment dwellers everywhere can now enjoy the same heating comfort as tenants in these modern Dean Boulevard apartments. With a Honeywell "Personalized" Heating Control System, each suite has its own thermostat. The tenant who likes a warm 75 degree temperature and the one who prefers a cool 69 degrees can each set his own thermostat and be sure he gets just what he wants. Thus, apartment dwellers can have the same "comfort unlimited" that Honeywell's new Moduflow control system brings to single-family dwellings.

Building owners and managers can now install a Honeywell P. H. C. System in existing apartments without remodeling or even redecorating. By an ingenious method developed and used exclusively by Minneapolis-Honeywell, the work can be completed in a matter of hours, without inconvenience to your tenants. It is as simple as installing a telephone.

Honeywell P. H. C. Systems have already been ordered for or installed in 302 buildings (4,933 suites) in 44 different cities. They are not only increasing tenant satisfaction (which will insure longer leases when things return to normal) but they are also saving fuel at an average rate of 20 per cent.

Whether you plan to build, or modernize your present heating plant, you should get complete information about Honeywell P. H. C. Systems. Just mail the coupon.

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Street Address.....

City..... State.....

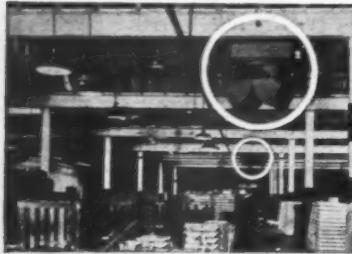
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Not just another unit heater, the **WING REVOLVING HEATER** is unique in that it does what no other heater can do—its slowly revolving outlets gently distribute the heat continuously in a constantly changing direction. It reaches over, around and under obstructions into out-of-the-way corners, its moving streams of heated air quickly warm up a plant in the



Above: Wing Revolving Unit Heaters in a typical low ceiling type of installation. Revolving Heaters are also made for practically any height roof or ceiling.

morning and its properly warmed, healthful air currents thoroughly distributed, create a sensation of live, invigorating comfort for the workers. Wing Revolving Unit Heaters are used in many of the country's leading industrial plants. Write for a list of installations.

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INDUSTRIAL BLOWERS



MOTOR DRIVEN BLOWERS
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DRAFT BLOWERS
PROCESS BLOWERS



REVOLVING UNIT HEATERS
HEATING FANS



METAL HEATERS
EXHAUST FANS



DUCT FLEXIBLE
DUCT FABRICATORS

Pictures, Inc. (BW-Dec. 8 '45, p44). United World is primarily concerned with distribution and, with Robert Young Picture Enterprises, participated in the announcement of the formation of Universal International.

The new corporation will produce 25 "A" pictures in the first year. Eventually it hopes to control a chain of 1,000 theaters by buying or building. Distribution in the United States and Latin America will be handled by United World Pictures, Inc. General Film Distributors, Ltd., a Rank property, will handle British distribution.

The formation of Universal International does not affect arrangements previously made by Rank for handling U. S. and Latin American distribution of second-string pictures through Robert Young's Eagle Lion Distributing Co. (BW-Dec. 22 '45, p36).

Sister Act at Sea

**Salvaging American Farmer
after its abandonment stirs up
an Anglo-American tempest and
a problem in admiralty law.**

The snarling contest among the war victors was intensified in the Anglo-U. S. sector this week by the salvage dispute over the freighter American Farmer. Both governments are directly involved and officials are working for a compromise which would avoid long-drawn-out suits and animosities.

Maritime laws governing such cases hark back to rowdy times when piracy was a semirespectable profession, when shore-based wreckers moved beacons so that merchantmen would run aground and into their clutches.

• **In a Pea-Soup Fog**—The complications are enough to make a lawyer's eyes light up. On July 31, the U. S. Lines freighter American Farmer collided with the Moore-McCormack cattle ship William J. Riddle in a pea-soup fog 400 miles off the British coast. The Farmer's captain abandoned his ship. Crew and passengers were picked up without loss of life, but the skipper's debatable judgment caused all the trouble.

The Farmer didn't sink. Instead, the \$2,000,000 ship, with her \$2,500,000 cargo of wheat, dried eggs, and other foodstuffs, swallowed in the swells of a quiet sea. Along came the British freighter Elizabeth. Smelling a fortune in prize money, her captain put a crew aboard the Farmer, broke out a British flag, and started to tow the derelict toward a British port.

• **Boarded by Yankees**—Meantime, the American Ranger, sister ship of the Farmer, steamed up and so did an American destroyer. The Ranger put a

larger prize crew aboard the crippled Farmer. They pulled down the British flag, cut the British tow line, put the British crew overside. This American crew finally brought the stricken ship to a British port under her own steam.

The tabloid London Daily Mirror headlines screamed "piracy." But it is not that simple. The skipper of the American destroyer who witnessed the affair was careful to report that the 2,000-ton Elizabeth was incapable of towing the 8,000-ton American Farmer. There lies the crux of the entire dispute. • **It's Headed for the Courts**—Salvage awards are heavy, but the rescue vessel must prove itself able to save the cripple, otherwise another salvor has the right to move in. Barring a compromise, the British courts will decide the main suit.

The British people are pleased by the prospect that most of the Farmer's badly needed foodstuffs will be saved. The Elizabeth is owned by the British government and the foodstuffs were for government account. It carried no insurance on the cargo. Hence any award that might come to the Elizabeth for saving the Farmer's cargo would merely mean a transfer from one of John Bull's pockets to another. Presumably the insurers of the American Farmer would be liable for claims against the ship. The U. S. government is directly interested through mails the Farmer was carrying and through the mortgage which it holds on the steamer.

• **Legal Precedents**—Most of the points raised by the Farmer's mishap are well covered by maritime law. Under U. S. statutes, the master of a vessel who fails to offer aid to persons endangered by hazards of the sea can be fined \$1,000 or be imprisoned. There is no legal obligation to salvage property at sea but masters are encouraged to do so by awards which have amounted to half (sometimes more) of the values salvaged.

Officers and crews share in the prize money. In typical cases, four-fifths of the reward goes to the owner of the salvor vessel and the remaining fifth to the crew. Courts consider the hazards undertaken in making the final divvy.

• **A Notable Instance**—During the first World War, the American ship Katrina Luckenbach broke down after leaving Gibraltar and was towed 1,356 miles to Hampton Roads by the British Gaelic Prince. Because most of the towage was through waters infested by submarines, the court allotted two-thirds of the award (totaling almost \$100,000) to the officers and crew of the Prince.

The courts recognize small contributions to the rescue of endangered vessels. A word of warning, as to a vessel approaching shoals, justifies a claim for salvage. So does the act of standing by a distressed ship. The destroyer which stood by the Farmer has a right to demand a share of the awards.



"We can control fires in the plant— but how about here in the garage?"

With its quantities of stored gasoline and lubricants—its fleet of trucks—the plant garage presents an out-of-the-ordinary fire hazard. One that calls for *specialized* protection.

Kidde Portable Extinguishers Handle the Job

Put Kidde Portable Extinguishers on guard—and garage fires are quickly smothered!

No special training needed to use these compact, powerful fire-fighters. Just aim at the fire—pull the trigger!

Dry, clean carbon dioxide does the rest. It kills the blaze *fast*, because flammable liquid fires are easy for Kidde units. No corrosion of equipment. No after-fire mess.

Investigate Kidde Portables for protecting garages and other small-fire hazards, in flammable liquids or electrical equipment. A Kidde representative will give you full details.

Walter Kidde & Company, Inc., 825 Main Street, Belleville 9, N. J.

The word "Kidde" and the Kidde seal are trade-marks of Walter Kidde & Company, Inc.



"This is the home of a machinist in our Santa Clara County plant..."



"You gentlemen have fine homes. But there isn't a single one of you who enjoys the liveability of this \$3000 a year machinist in our Santa Clara County plant.

"This home is just 10 minutes by car from our plant. It is located on a half acre of land that has a little family orchard and a vegetable patch. This machinist enjoys fruits and vegetables that you can't buy in a store.

"See that little patio. That's an outdoor living room. Dinner is served out there about six months in the year. Sometimes the meal is barbecued over glowing charcoal; other times it's just a relaxing meal in the cool of the evening.

"Naturally, this home didn't cost a fortune. A machinist can't afford a mansion—and neither can the thousands of other workers who own their homes in Santa Clara County.

"You all know how the production record in our Santa Clara County plant is far ahead of our other plants. But you didn't know why. This is the reason—the Santa Clara County way of life—liveability plus!"

IF YOU ARE SEEKING A PACIFIC COAST LOCATION

WRITE FOR THIS FREE BOOK

It outlines all of the reasons why Santa Clara County is the fastest growing industrial area on the Pacific Coast. It's free if you write on your business letterhead.



DEPT. W, SAN JOSE CHAMBER OF COMMERCE, SAN JOSE 23, CALIFORNIA



SANTA CLARA COUNTY California

The population center of the Pacific Coast

Isles in Transition

Labor troubles in Hawaii point up readjustment problem, but the territory's basic riches are left unimpaired by war.

Though the great founts of its agricultural wealth flowed uninterruptedly throughout the Pacific war, Hawaii now finds itself confronted with problems of readjustment—some of them psychological.

With the withdrawal of the Army and Navy from one installation after another, Honolulu and the island of Oahu have undergone a drastic contraction in population. No longer does military traffic clog rural roads with vehicles of every shape and size; no longer do queues of servicemen—waiting for a chance at a coke, a sandwich, or a pinball machine—wrap around the city's corners.

• **Fields Still Teem**—Some of the military bases, airfields, and related establishments that are now abandoned represent acreage withdrawn from agriculture because of war needs. But earnings statements bear witness that sugar cane and pineapples, Hawaii's two most important products, can not be regarded as war casualties.

Naturally, the merchants of Honolulu miss the long lines of uniformed customers who for so many months were eager to buy far more than the stores were able to provide—far more than they could find help for selling.

• **Must Tidy Up**—The tourist trade has not yet been resumed. Tourists are not wanted until the territory can be tidied up a bit. Much of the damage done by the April tidal wave remains unrepaired. In Honolulu, many buildings have long lacked paint. The Royal Hawaiian Hotel remains closed, after long occupancy by the Navy.

Less easily solved problems of readjustment, however, are those which concern labor, which is both scarce and restive. The sugar planters and the C.I.O. are in conflict over whether the time-honored perquisite system is to be continued.

• **Union's Demands**—Up to now, plantation workers have received a part of their compensation in the form of housing, utilities, medical care, and other benefits provided by the companies. The International Longshoremen's & Warehousemen's Union, negotiating with 33 plantations, is demanding continuance of these benefits (with union participation in their administration) along with a 40-hour week, a 65¢-an-hour minimum wage, and a closed shop. Sept. 1 was set as a strike deadline.

The planters countered with a pro-

posal to grant the 65¢ an hour (as against the present 43½¢) only in case the perquisites were abolished and the employees would agree to pay for them.

• **Pineapple Plan**—The pineapple industry recently announced a plan whereby the housing of its workers would be put in the hands of a benevolent trust.

Hawaii's urban labor front has been troubled, too. An unauthorized bus strike tied up Honolulu's transportation system for three days in July, and gasoline haulers walked out for a day.

A one-day utilities strike on Aug. 1 was planned, and narrowly averted. A.F.L. unions, in conflict with the bus company, the electric power company, and the telephone company, yielded to the pressure of a newspaper publicity campaign in which the havoc that would result from a general strike was impressed upon the public. The labor grievance was taken to the National Labor Relations Board.

• **Tightest Market**—For months, the U. S. Employment Service has listed Hawaii as this country's tightest labor market.

The political pot continues to generate considerable heat, with the Army, the Navy, the Chamber of Commerce, the present territorial government, and other identifiable interests blowing steam in various directions from time to time. The desire for statehood persists.

War or peace, Hawaii remains the complacent possession of what its citizens love to describe as "the climate California would like to have."



WELL OILED HOBBYHORSE

A hobbyhorse that nobody rides is doing its stuff at a Los Angeles circus grounds—and making money. When he found a busy oil-well pump on his proposed circus site, Dave Bradley asked and got permission to doll it up a little. The result: a bucking horse with mouth that opens, green-bulb-light eyes, wings. And now it pumps publicity for Bradley in addition to its daily stint of 75 bbl. of oil.



How Dan Sparks Stayed Out of Boot Hill

"Y'see, stranger, the fellers that run this garage before Dan couldn't keep our cars behavin' on these mountains. The boys took it personal, and was governed accordin'ly.

"The boys are right fond of Dan and his ways. Their cars run good, 'cause he road-tests them over a new machine he bought called a MOTO-MIRROR that makes 'em work just as hard in his shop as they would in the mountains. Dan op'rates a couple buttons, so you'd swar your car was ridin' first on a level piece and then climbin' a steep grade. Anythin' that could go wrong on the road shows up like a rash. The boys know fer sure what repairs they need.

"Then Dan fixes one little thing after another—and, every time he does, the meters on this MOTO-MIRROR show the car's gained some more power. He gets the carb'retor an' ignition tuned to a ha'r—an' catches everything from a slippin' clutch to a rattlin' bumper. When he's through with your car, it's just got to be workin' its level best.

"The boys say it's like buyin' pork an' taters over to the store. Meters on this MOTO-MIRROR tell you, same as the store scale, just how much horsepower your car's got for the road. You know you're gettin' your money's worth.

"So Dan stayed out of Boot Hill, an' we all got better-runnin' cars."

Herky Horsepower Says:

You won't have to tolerate any loafing horsepower in your car when your dealer gets his new MOTO-MIRROR. That should be very soon now.



MOTO-MIRROR is simple to operate, easy to install and priced within the reach of any service shop ... it is the first practical service dynamometer.

Clayton MOTO-MIRROR



CLAYTON MANUFACTURING CO.
ALHAMBRA, CALIFORNIA



MANUFACTURERS OF
STEAM GENERATORS • CHASSIS AND
ENGINE DYNOMETERS • EJECTOR
CLEANERS • HYDRAULIC VALVES

MARKETING

Western Auto in High Gear

Kansas City company plans new stores to saturate 37 states in which it operates now. Invasion of Latin American market is scheduled as \$100 million yearly volume is predicted.

In retail circles nothing is more plentiful these days than expansion plans. Unusually ambitious are those of the Western Auto Supply Co. of Kansas City which is envisioning an increase in annual sales volume from \$58,000,000 to \$100,000,000, and an invasion of the Canadian, Latin American, and South American markets. Western has already incorporated subsidiaries in Mexico and Cuba to protect its name there.

• **Running Start**—Though plagued by shortages of merchandise and the difficulty of finding suitable store sites for lease or purchase, Western is off to a running start in expanding both its company-owned stores and its voluntary chain of Western Auto affiliates.

Since B. C. Gamble, president of Gamble Stores, Inc., last year became Western's largest stockholder (19%) and board chairman (BW—Sep. 22 '45, p92), it is not surprising that Western's expansion follows rather closely the pattern laid down earlier by Gamble stores (BW—Jun. 17 '44, p97). This pattern

calls for wholesale and retail operations that complement each other, acquisition of soft as well as hard goods to make a well-rounded line, and emphasis on private brands. Gamble also owns McLeod's, Ltd., a chain in Canada, where Western will expand.

Western's present international aspirations are a long step from the automobile accessory store which was founded in 1909 and did a \$12,000 business in its first twelve months even in those infant days of the motor industry. The company incorporated in 1914, and opened its first branch in 1919, when its annual sales volume had grown to \$800,000.

• **Adds New Stores**—Western's \$58,000,000 sales last year were split about half and half between the company's wholesale division—which sells to the associate stores—and its retail division, representing the company-owned stores. Sales this year are running 107% above last year, and the company expects them to reach a \$100,000,000 total—highest

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STAINLESS TUBING

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STAINLESS TUBING for
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THE CARPENTER STEEL COMPANY
Welded Alloy Tube Division
Kenilworth, New Jersey

Carpenter
STAINLESS TUBING
"MORE THAN CORROSION RESISTANCE"



SELLING MAIN STREET—ON WHEELS

Convinced that the small towns offer a big, untapped market for its quartz ultraviolet ray lamps, Sun-Kraft, Inc., Chicago, is going after it—by bus. Starting late in August, the Sun-Kraft Limited (above), a white and gold creation complete with its own generating plant, office equipment, kitchen unit, shower, sleeping quarters for eight, will demonstrate Sun-Kraft products—and modern sales methods—to crossroads merchants. Important sales props include a chef to dine as many as 16 prospects "on board"—and color sound film.

since the 1941 peak of \$71,000,000. But Lester Hutchings, president, considers the company only half grown even at this size; he talks in terms of half a billion dollars annual sales eventually.

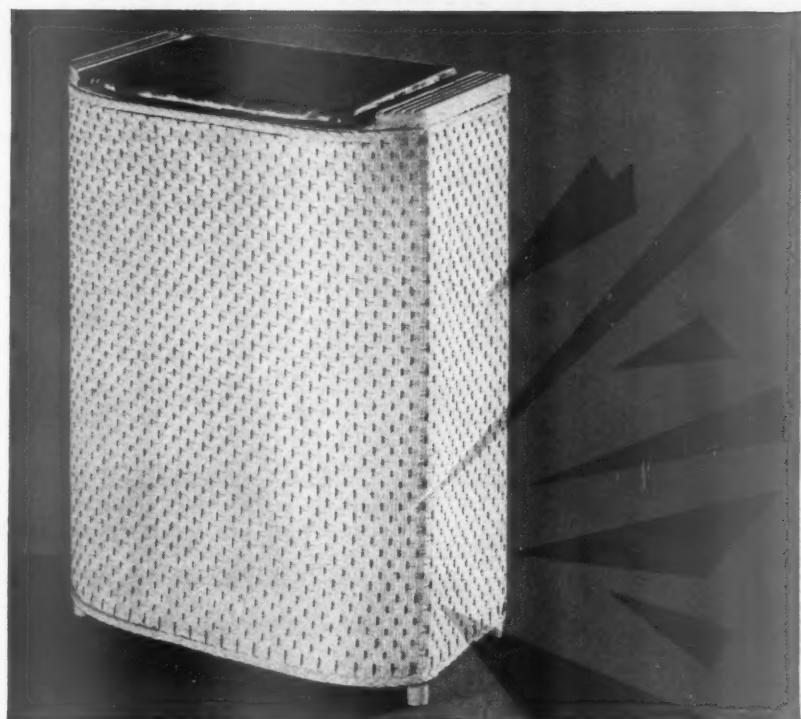
Last year Western had 235 company-owned stores and about 1,500 associate stores; now it has 250 of its own, and 1,606 associates. Its aim is to saturate the 37 states where it now operates, adding 400 to 500 outlets a year, ultimately reaching 4,000, with the ratio of associate stores to company stores about eight to one.

• **Waiting to Sign Up**—Applicants for dealerships have always been plentiful, with several hundred on the waiting list. A new dealer invests from \$4,000 to \$12,000, depending on the population of the town, the average cost being pretty close to \$1 per head. For this he gets complete ownership of a going store, with stock supplied from Western Auto's wholesale centers located in strategic eastern and midwestern cities. He also receives continuous assistance on advertising, accounting, display, merchandising, and other aspects of retail store operation from Western's management.

Dealer-owned stores are limited to towns of less than 15,000, and company-owned stores so far have been spotted in cities of over 35,000 population. The company is now experimenting with a new type of store with which it will assail towns in between those limits. It will include self-service, and similar devices to reduce the cost of store operation and increase sales volume.

• **New Products**—In another form of expansion—adding new lines—Western Auto is taking up where it left off when the war knocked such ideas into a cocked hat. Much of its merchandise is its own private brands, such as Wizard batteries, radio tubes and spark plugs; Truetone automobile and home radios; Hot Wave car heaters, Tru-Shot rifles and sporting goods, Wescote paints and wallpaper; Westcraft tools; Westline lawnmowers and garden tools; Good Penn and Wearwell oils; and Hollywood seat covers. Many of these items are made for Western by manufacturers who are leaders in their own field—such as United States Rubber Co. which makes most of the Davis tires which Western distributes. Western does not own or control any manufacturing companies.

Western will also continue some lines, like work clothing, furniture, and juvenile lines, which it took on during the war when merchandise was scarce. But probably its heaviest emphasis will be on private-brand home appliances. Before the war it carried Wizard brand washing machines, ironers, and other electrical appliances. These lines will be expanded (Conlon Corp., for example, has just closed a contract with Western to make Wizard washers and



THE BUSINESS

THAT WAS HAMPERED BY SPLINTERS

Splinters are little things, but they were a big headache to manufacturers of household laundry hampers who were using rattan, reeds, and thin wood strips to weave their products. The splinters stuck in workers' fingers and ruined the stockings and silk unmentionables that were tossed into the hampers.

Twitchell solved that problem—quickly, easily, inexpensively. Flat strips of folded woven kraft paper now replace the splintery materials in the hampers. Application is easier and faster. Sizing, paint, enamel, shellac and other finishing materials go on more evenly and quickly. Hamper manufacturers are no longer hampered.

What's hampering your business? Could a paper product end your worries? Don't say "No" until you've explored the possibilities with Twitchell. Dozens of products that "couldn't be made from paper" are now making money for manufacturers who had the courage to say, "Let's try it." E. W. TWITCHELL, INC., Third and Somerset Streets, PHILADELPHIA 33, PA.

TWITCHELL

PAPER PRODUCTS FOR INDUSTRY

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SHAPED
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WOVEN

OUT OUR WAY



SOL-SPEEDI-DRI MAKES FLOORS SAFE FOR WALKING

SPREAD SOL-SPEEDI-DRI AROUND, and you cover dangerous, oil-glazed surfaces with a Magic Carpet . . . no falling, no slipping with SOL-SPEEDI-DRI underfoot. Sweep it up with an ordinary stiff broom . . . and floors are left clean and safe. SOL-SPEEDI-DRI in time will remove even the oldest oil- and grease-stains!

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SUPPLIERS:—South, Midwest, and West Coast: Waverly Petroleum Products Co., Philadelphia 6, Pa.
East: Safety and Maintenance Co., Inc., New York 1, N. Y.



END OF AN ERA

Paul W. Kesten, whose slick verbal pyrotechnics helped put Columbia Broadcasting System on the map in the early thirties and incidentally poured glamour on the then pipsqueak radio business, has resigned as vice-chairman of the CBS board of directors. Persistent arthritis is forcing the man who, next to William S. Paley, has been most closely identified with CBS into near-retirement. (He'll continue as CBS consultant.)

ironers), and refrigerators and stoves will be added for the first time.

• **No Trespassing**—Though Western maintains that its operation is completely independent, it can be expected to work in harmony with Gamble Stores, Inc., and with Western Auto Supply Co. of Los Angeles, 70% of whose stock is also held by B. C. Gamble. The Los Angeles company is an early offshoot of the Kansas City firm, and though the two companies have never had any corporate relationship they have always observed a gentlemen's agreement not to trespass on each other's territories, and have cooperated in other ways.

All three companies have company-owned stores plus voluntary chains bearing their names; all three have extensive private brands; during the war all three hastened their eventual diversification when merchandise shortages made it necessary. And all three companies with the country neatly staked out among them and armed with a broad assortment of hard and soft lines can be expected to hold their own in competition not only with old established forms of retailing but with relative newcomers.

Milk by the Pound

Syracuse dairy abandons quart pricing in an effort to convince housewives that price isn't high comparatively.

In an effort to convince housewives that the price of milk is not high, a large Syracuse dairy has begun pricing this commodity by the pound instead of by the pint or quart.

Byrne Dairy, Inc., announced its new policy in newspaper display ads which listed comparative prices of other foods to back up the company's assertion that milk is "the cheapest food on your table." Byrne decided to make the change when the removal of subsidies forced milk prices up. Even though milk is higher than it's ever been, the dairy contends that it is still the best bargain in the food line.

• **Container Problem**—In switching to the pound basis, Byrne ran into a packaging problem which is still unsolved. The conventional quart of milk weighs 2.15 lb., and is the container approved by most boards of health. Also the milk bottle shortage still persists, with delays expected up to six months on orders.

So Byrne took the line of least resistance—and avoided arguments with OPA—by selling in ordinary quart and pint containers, but pricing by the pound. Prices established for 1 lb. and 2 lb. are the same as prevailing prices for 1 pt. and 1 qt., respectively. Therefore, though the quoted price is 19¢ for 2 lb. of Grade A milk, the dairy actually is selling the customer a quart bottle containing 2.15 lb. for that price.

• **No Customers Lost**—Some customers suspected that the change constituted a price increase, or that it might be a move to confuse them as to what the real OPA price ceiling was, and the dairy phone rang constantly after the change. Customers wanted to know if milk had gone up in price, and how much a quart of milk actually weighed. Many customers poured the milk out of a bottle and checked the weight themselves. Dairy officials assured them that the price remained unchanged and that the action was taken to enlighten customers on the pound value of milk as a food rather than to confuse them. Byrne was relieved when the first three days under the new system yielded many commendations without loss of a single customer. The trend in recent years to pricing fruit and vegetables by the pound had set precedents for the milk change.

Syracuse OPA officials reported that the change in the price basis had come to their attention, but since a quart

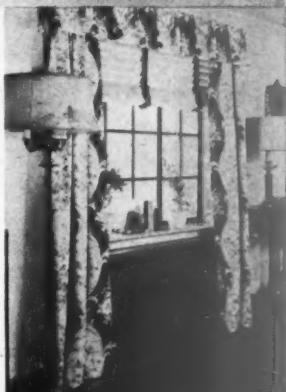


When 364 Dayton Families MOVED INTO THESE APARTMENTS ...

One of Dayton's most notable solutions to the housing shortage is a group of handsome colonial buildings, designed to give homes to 364 families. These comfortable units boast every new feature, from steel casement windows and venetian blinds to modern comfort through Trane Weather Magic. To the delight of the children there are even complete playground facilities.

Throughout all of these new units, Trane Hot Water Heating Systems assure positive heating comfort with quick response to thermostat demands. An additional function of this modern Trane system is to provide year-round domestic hot water at the turn of a faucet for each family. The pleasant warmth and the unobtrusive beauty of Trane Convector-radiators add a finishing touch of perfection to this truly modern Weather Magic system, planned by the architects and contractors for this model housing development.

More than 200 Trane field engineers in principal cities all over the country co-operate with architects, engineers, and contractors in the application of Trane systems for your comfort. Ask your architect, engineer, or contractor for further information on Trane products and systems for heating, cooling, and air conditioning.



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Contractors:
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Company, Cincinnati
Fairway Plumbing & Heating
Company, Dayton



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of milk was still being offered at ceiling price, the agency was not concerned.

- **By the Pound Wholesale**—One advantage to a pound sales price is that dairy farmers sell raw milk to the dairies on that basis. Some dairymen discounted this advantage, however, since the farmer's 86-lb. milk can is a standard 40-qt. container, and old hands in the dairy business make calculations on the double measures almost automatically.

Byrne insists that it's off the quart standard for good. It plans to request weight instead of liquid measure on next order of bottles, and will switch to an exact pound measure if enough other dairies come along to make it feasible.

Record in Gems

U. S. jewelry sales reach high level. World production of diamonds jumps to 14 million carats, 20% over 1944 output.

Jewelry sales reached an all-time high of \$1,200,000,000 in the United States last year, says the Bureau of Mines in its annual review of gem stones. Prosperity to jewel merchants came from wartime savings (especially women workers), returned G.I.'s with bulging pockets, a flood of marriages, and people hedging against inflation.

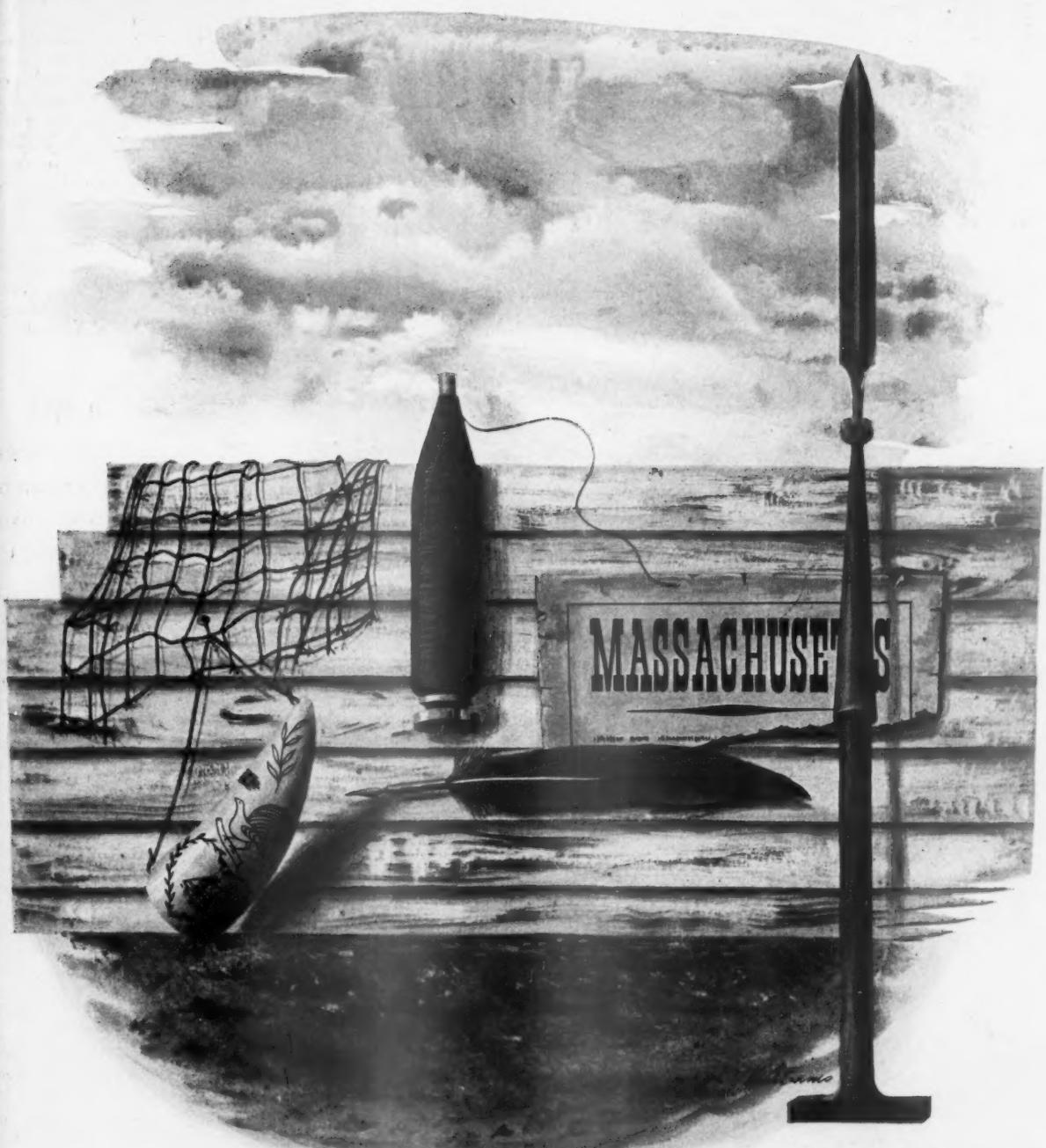
- **Gem Prices Skyrocket**—Diamonds, which account for 95% of world sales of precious stones, poured into the U. S. in greater numbers last year than in the lush 1920's, and world production jumped to 14,000,000 carats, 20% more than in 1944; only 17% were of gem grade. The Diamond Trading Co., which sells 95% of rough diamonds, made an all-time sales record of \$124,500,000, compared with \$117,000,000 in 1944 and \$120,400,000 in 1943. Sales exceeded production.

Uncut gem diamonds are twice their former price, cut diamonds have never been so high, and large stones bring all the traffic will bear. The 20% excise tax on jewelry sales brought in almost \$200,000,000 but, according to dealers, sent many gems into the black market.

Industrial diamonds, representing about one-fifth of world sales in dollar value, averaged \$1.19 a carat for import. Prices have dropped steadily since the big collapse in 1930 when they tumbled from \$80 to \$20, nearly halved during the war.

- **New Settings**—New York City, the wholesale jewelry trade center, is now aiming to please buyers in the medium and lower income brackets whence most customers now come. Settings representing flowers, sunbursts, stars, and leaves—in which many small stones,





Artist - Arthur Williams

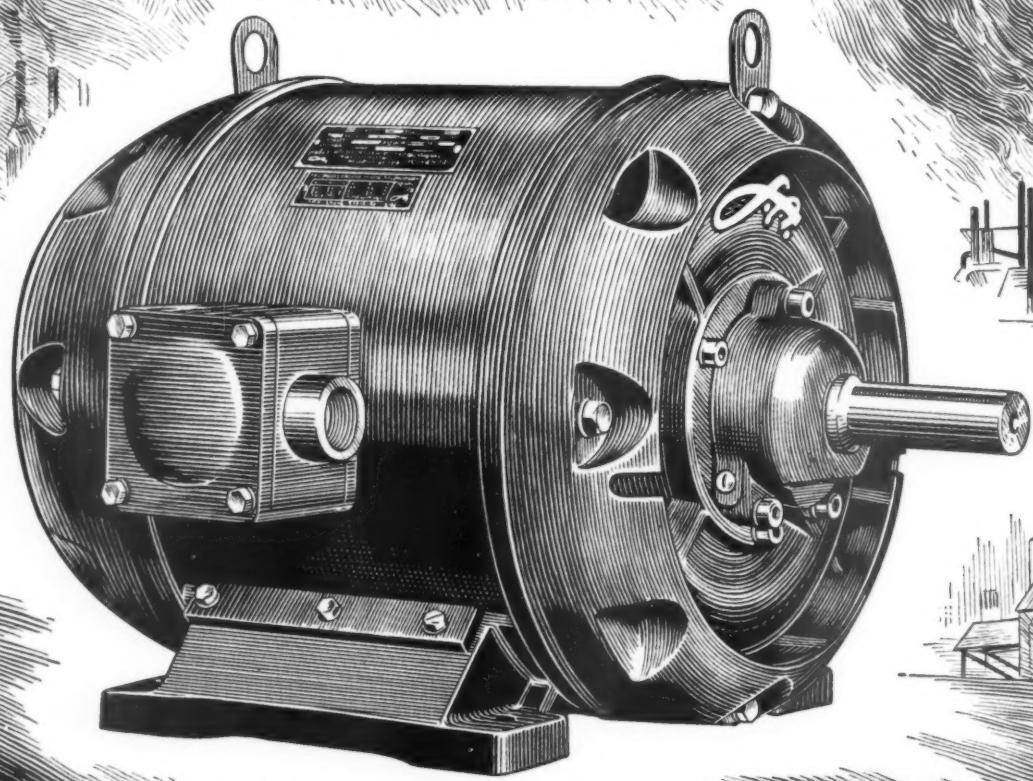
MASSACHUSETTS—annual purchases: \$2½ billion—mostly packaged.

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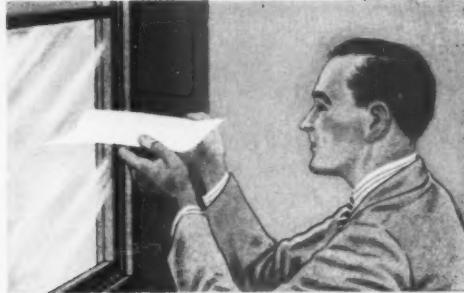
Test your word knowledge

of Paper and Printing



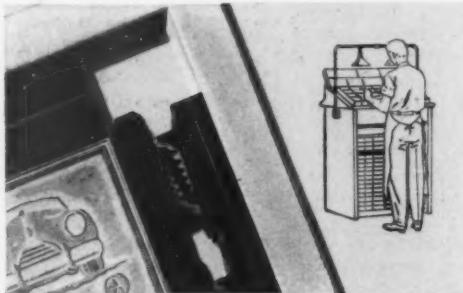
1. Progressive Proofs

- Proof revisions filed in sequence
- Color separation engraving proofs
- Paste-up of type and engraving proofs



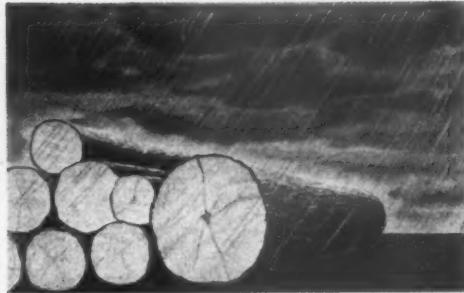
2. Look-Down

- Appearance of paper under reflected light
- Eye-attracting device in layout
- Method of proof reading



3. Furniture

- Small incidental illustrations
- Name of a sans serif type face
- Blocks used for lock-up in printing



4. Volumetric Composition

- Ratio of water to solids in pulpwood
- A wordy piece of copy
- Combination of air, solids, and moisture in paper

ANSWERS

1 Progressive Proofs are color separation proofs added progressively till full color effect is achieved. For the finest 4-color mailer or the simplest one-color page, there's better reproduction with Levelcoat*—a background of unobtrusive beauty.

2 Look-Down or "high eye" shows the appearance of paper when viewed under reflected light. In making clear, bright Levelcoat Papers, every run is sampled and subjected to the "high eye" test... your assurance of clean, eye-appealing smoothness in every sheet.

3 Furniture is the term for wood or metal blocks used in locking up a printing form. Like accurate lock-up, Levelcoat Paper is a precision element in producing better printing. From ream to ream, lustrous Levelcoat is uniformly fine.

4 Volumetric Composition is the combination of air, solids and moisture in paper. From beater to finished roll, the composition of Levelcoat is carefully controlled—a factor which makes Levelcoat outstanding for strength, ink affinity, opacity, and printability.

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If our distributors cannot supply your immediate needs, we solicit your patience. There will be ample Levelcoat Printing Papers for your requirements when our plans for increased production can be realized.



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*TRADE MARK



TRAINING FOR A HIGHER OPERATING SCORE

Keenly aware of the shafts of criticism that have been directed against airlines generally, Transcontinental & Western Air strives for better service—and public relations—by offering its 13,000-odd employees specialized training at a company “college”—a recently purchased seven-story building in Kansas City, Mo. Recordings facilitate class instruction in handling reservations (left); cargo loaders improve their baggage-stowing technique in a mockup transport (right); other courses cover almost every phase of airline operation—except actual piloting—from customs regulations to baby tending.

rather than one big one, are used—appeal to this market. Ensemble sets that consist of two or more pieces set with similar stones are being pushed.

Unusual cuttings, like marquise and cabochon, are said to be gaining in favor. So are rings worn over gloves, a Renaissance affectation. Platinum is replacing palladium except in earrings, where lightness is an advantage. Two-tone gold is still popular.

Jade leapt into first place last year in U. S. production figures, ahead of sapphire and turquoise which have long been the main American-minded semi-precious stones. Wyoming, which sold 5,890 lb. to China last year (BW—Aug. 18'45, p29), dug several tons of black jade and light-green nephrite (an American jade) in 1945, and Alaskan jade entered the market.

• **Congo First in Weight**—The Belgian Congo, as usual, led the world in precious stone production—chiefly diamonds—but its 73% by weight added up to only 13% of the \$64,750,000 value of world production. The British Empire, notably South Africa's great mines, accounted for 71% of the value, but only 19% of the weight.

Burma's ruby mines and Colombia's emeralds have not paid profits for some years, and, while Russia exported 1,682 carats of cut emeralds to the U. S. the first half of last year, the quality was poor and brought only \$19 a carat. • **Jewels or Glass?**—G.I.'s in Asia spent thousands of dollars on jewels, but were probably sold inferior or synthetic stones. Colored glass, used to direct traffic on American airfields in Burma, disappeared at such a rate that it is suspected it went to cutters who peddled it later as genuine gems. The mem-

bers of the American Gem Society have offered to test free for veterans the stones they brought home.

NEW WASHER UNVEILED

The Launderall, automatic washing machine made by F. L. Jacobs Co. of Detroit was unveiled last week at R. H. Macy & Co., New York, but Macy is not taking any orders yet and Jacobs has set no price.

Jacobs is one of the many companies producing industrial products which have diversified by adding consumer goods. For years it has supplied metal stampings and parts to automobile manufacturers. Last year it announced its intention to make Launderall, and it will add electric steam irons, automatic dishwashers, and automatic garbage disposal units. Fifty-six distributors have been appointed.

Jacobs will also make an automatic bottle vending machine which will be sold only to Coca-Cola bottlers.

SLEEP DISK CHALLENGED

The DeLuxe Record Co., Inc., which last month began drugstore distribution of “Time to Sleep,” a record made by Ralph Slater, hypnotist (BW—Jul. 6'46, p44), was rudely awakened last week by a federal cease and desist order.

The government contended that “Time to Sleep” is a device, under the definition of the federal Pure Food, Drug & Cosmetic Act, and that as such it is misbranded since it does not achieve its asserted purpose.

DeLuxe denies that the record is a food, drug, cosmetic, or device under the definitions of the act, and adds that

A typical SLY Dust Collector inside building with hopper discharge through floor. This filter collects the dust from grain handling equipment. Similar installations collect alfalfa meal.

SLY Dust Control Systems are used to control more than 100 kinds of dusts in 57 industries in all kinds of manufacturing operations, such as crushing, grinding, conveying, loading, separating, and mixing various kinds of materials. SLY Dust Collectors are not expensive either to install or maintain. They save thousands of dollars yearly in plant maintenance and improved production, also in the recovery of valuable materials—often repaying their cost in a comparatively short time. Over 5000 installations.

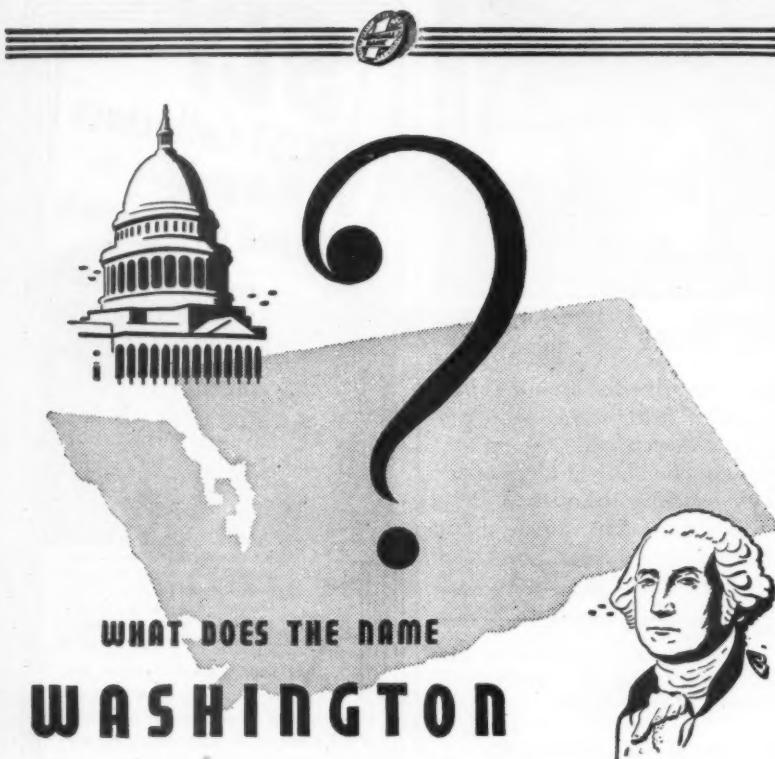
Ask for Bulletin 98, 20 pages of useful information on dust control, and tell us your problem.

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THE "Father of His Country" . . . the Nation's Capital . . . or the great State that forms the Northwestern corner of the United States, bordered by the vast Pacific Ocean?

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Spokane and Eastern Division — Spokane

even if it were, the record is not misbranded, since it is intended not to knock the listener out cold, but merely to induce sleep. Slater says he will ask for a jury of insomniacs on whom to test the record when the hearing comes up in the U. S. District Court of Brooklyn on Aug. 21.

SEASON MOVIE SEATS

Annual subscriptions, long a standard method of selling opera and legitimate theater, are going to be tried by the movies. When Manhattan's new Park Avenue Theater (located, as the name implies, in the city's ultraplushy sector) opens this fall, patrons holding annual subscriptions will get first whack at the seats.

For \$124.80, which includes tax, an annual subscriber may see two early evening shows each week. For \$187.20, he may go to the late shows and also be admitted to Saturday and Sunday performances. Individual admissions will not be sold unless the subscription drive, now getting under way backed by advertisements in the *New Yorker* magazine, shows signs of stalling.

Of neighborhood size (592 seats) the new theater will have facilities for exhibiting regular films and 16 mm., a special section for invalids, television, and a game-club room. The publicity says only top "A" pictures and foreign films will be shown. Walter Reade is owner-builder.

P. S.

Foot Saver Shoe advertisements from now on will carry the legend, "Product of Private Enterprise." The manufacturer, Julian & Kokeng Co., is urging other advertisers to follow its example in telling consumers that "private enterprise can best produce an article of merit."

Gimbel Bros., Inc., is considering Atlanta (stronghold of Davison-Paxon Co., subsidiary of R. H. Macy & Co.), among other cities, as a site for a new store to operate at the price level of Saks Fifth Avenue (a Gimbel unit).

Ohrbach's, Inc., women's apparel store on New York's Union Square, will build a new store on Wilshire Boulevard in Los Angeles next year. Ohrbach's only branch store now is in Newark, N. J.

Maine voters will decide in September by referendum whether to place a 5% tax on cosmetics, perfumes, and other toiletries (among other products), to help finance a soldiers' bonus. The toilet goods trade, unable to do much about the situation, consoles itself that Maine sales are no large proportion of the country's total, and that in cosmetics it is not historically a case of "so goes the nation."

FINANCE

(THE MARKETS—PAGE 102)

Family Rule Ebbs

Trend toward diversified ownership gains as inheritance and estate taxes prompt sale of closely held securities.

Even though the trend didn't excite a great deal of public attention at the time (BW—May 5 '45, p76), despite possible long-range significance, the war years disclosed a definite movement toward diffusion in ownership of many of the nation's corporations.

• **Large Blocks Sold**—Numerous wartime deals involved a redistribution among smaller investors of large blocks of shares in prominent publicly owned corporations which had long rested in the strong boxes of wealthy individuals, estates, etc. Featuring this procession was the public sale by the Rockefeller family of some \$25,000,000 of stocks in several of the leading oil companies (BW—Oct. 30 '43, p106).

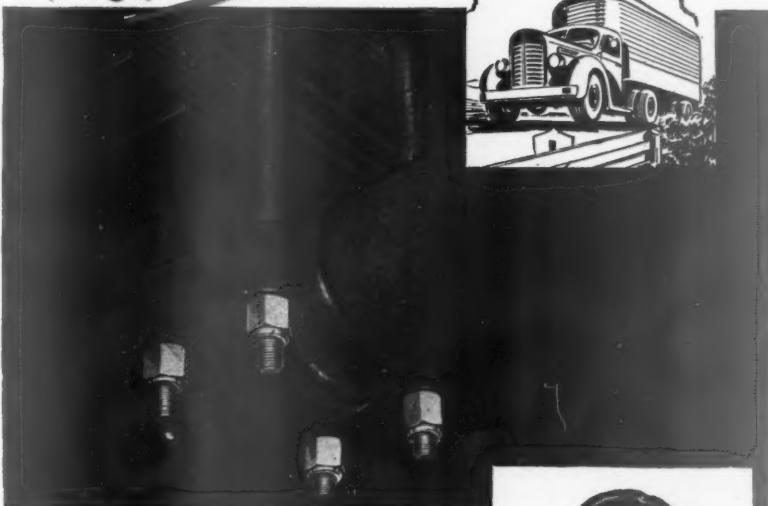
Other transactions gave the public its first opportunity to share in ownership of a number of successful corporations which traditionally had been privately owned. Among them were such outstanding national business figures as Corning Glass Works (BW—Apr. 14 '45, p63) and Anderson, Clayton & Co. (BW—Apr. 14 '45, p18).

• **Trend Picks Up**—The return of peace has brought a definite quickening of tempo in this trend. And "insider" selling of large holdings of already issued stock, plus the desire of many once exclusive "family affairs" to become at least in part publicly owned corporations, has accounted for much of the consistently high level of postwar activity seen in Wall Street's "new issue" and "secondary offering" markets.

In some instances the recent entrance of hitherto privately owned enterprises into the public financing field has been undertaken for the exclusive benefit of the corporation itself, rather than on the behalf, solely or partially, of long-dominating stockholder interests.

• **Wall Street Debut**—That was the case last spring, for example, when Alexander Smith & Sons Carpet Co., the nation's largest maker of soft-surface floor covering and a privately owned company since 1845, made its Wall Street debut with a \$10,000,000 stock offering (BW—Mar. 16 '46, p46). American Broadcasting Corp.'s coming sale of \$14,000,000 of stock (BW—Jun. 29 '46, p46) will represent a similar family-

A NEW *U-Bolt Nut* THAT HOLDS PERMANENTLY



—a NEW ESNA Elastic Stop Nut ends the greatest threat to spring life

Loose, or unequally loaded fastenings are the most frequent causes of leaf spring breakage. More than 4,706,000 spring repair jobs have been handled annually in dealer, independent and fleet owner service shops. Many of these could have been avoided.

ESNA has a solution—the NEW U-Bolt Elastic Stop Nut that can be... applied to meet the original manufacturer's recommended specifications... self-locked in position with the Red Elastic Collar so that no amount of shock or vibration can disturb its setting... depended upon to carry a bolt loading of 70,000 psi with its extra-long, extra-strong body.

ESNA U-Bolt Nuts—like all Elastic Stop Nuts—are designed to prevent unnecessary repairs and reduce overhaul time. They are self-locking, easily removed, reusable. They protect permanently against Vibration, Corrosion, Thread Damage, Liquid Seepage, and Costly Maintenance. For further information address: Elastic Stop Nut Corporation of America, Union, New Jersey. Representatives and Agents in principal cities.



The RED ELASTIC COLLAR

—denoting an ESNA product—

... is threadless and permanently elastic. Every bolt—regardless of commercial tolerances—impresses (does not cut) its full thread contact in the Red Elastic Collar to fully grip the bolt threads. In addition, this threading action properly seats the metal threads—and eliminates all axial play between bolt and nut threads.

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BANK BIGWIGS GO BACK TO SCHOOL

For the second year running, bank executives and officers have turned students at the University of Wisconsin, where a two-weeks' summer course sponsored by bankers associations in 16 midwestern states ended last week. Patterned after the American Bankers Assn. course at Rutgers, the Wisconsin school is directed by Herbert V. Prochnow, vice-president of the First National Bank of Chicago. Faculty members are chiefly senior officers of banks of the Middle West—with visiting lecturers from government, industry, and other banks.

company "first" from which present stockholders will reap no harvest.

However, there have not been a great many operations of that type. This has been particularly true of late. Actually, a noteworthy portion of all the public stock financing in 1946 has involved companies previously strangers in the security trading arenas, or only slightly known there, and the offerings provide no new capital for the issuer in question. In cases where such "newcomers" have sold stock to supply their new-money needs, stockholders have usually seized the opportunity to dispose of large segments of their own personal holdings of the same issue.

• **No Slackening Yet**—Despite the flood of such offerings seen thus far this year, the pace still shows no signs of any nearby slackening.

Examine, for example, the stock offerings involving the 150-odd nonutility, mining, and financial companies that recently were awaiting Securities & Exchange Commission clearance. About one-third represented deals designed either to benefit large stockholders, or to benefit both large stockholders and their corporations.

Cynical Wall Streeters think that a number of the deals of this type consummated lately strongly suggest sell-outs by insiders who, because of future uncertainties, have decided to let the general public hold the bag from here on. Why otherwise, they reason, would so many owners now be "cashing in" and finally inviting public participation in such profitable businesses.

• **Inheritance Tax Angle**—The basic reasons underlying the current trend toward diffusion of corporate ownership, however, can't be explained that simply. In some cases cynicism may be justified. Nonetheless, the scoffers have overlooked several important matters.

Very few of the sales in question, for example, have involved the transfer of enough stock into the public's hands to entail shifts in control or management policies. In virtually every case the seller of stock has been careful to retain a controlling interest in the business. Nor has the sale often signified his retirement from the corporation.

As much responsible for the trend, perhaps, as anything else, is the problem of inheritance taxes. Just as high rates of taxation broke up so many landed estates in Great Britain after World War I, so have our high inheritance and estate taxes lately been producing a breaking up of medium and larger domestic family businesses, and hastening decided changes, as well, in the ownership of most large publicly owned American corporations.

• **Worry for the Future**—The large inheritance taxes his estate may be called on to pay to state and federal authorities obviously have been a matter of deep concern to many a prosperous businessman. This has been particularly true if many of his resources were tied up in the ownership of stocks with restricted markets, such as would be the situation in the case of the owner of a profitable personally owned enterprise.

If such a businessman makes no effort

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Gas, oil, stoker or hand-fired heating plants, for warm-air, steam or hot-water systems.

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Bakery refrigeration equipment, bake ovens, cold storage, fast-frozen foods, dehydrated foods, fruit ripening rooms, meat cases, vegetable display cases.

AGRICULTURE

Farm freezers, food lockers, greenhouses, meat cases, milk coolers, hatcheries, tobacco curing sheds, truck refrigeration units.

HOSPITALS

Baby incubators, biological cases, blood-plasma refrigeration cases, ice-making machinery, laboratory ovens, sterilizers, water coolers.

BEVERAGE COOLING

Beverage coolers, bottle refrigeration chests, chill bars, soda fountains, coffee makers.

*Wherever
temperature or pressure
control is needed . . .*

Positive accuracy and extreme dependability are assured with White-Rodgers controls. Their attractive appearance harmonizes with your own well-designed products. Flexibility in application and range simplify supply and inventory problems. Ease of installation and adjustment cuts service costs. You will profit by specifying White-Rodgers controls for any application requiring control of temperature or pressure. Write for catalog and engineering data today.



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Controls for Refrigeration • Heating • Air Conditioning

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420,000 Shares

Radio-Keith-Orpheum Corporation

Common Stock
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Price \$21 per Share

Copies of the Prospectus may be obtained in any State from such of the several Underwriters, including the undersigned, as may lawfully offer the securities in such State.

LEHMAN BROTHERS GOLDMAN, SACHS & CO.

August 9, 1946

Securities Volume at Peak

In the first half of 1946, corporations floated almost \$381,000,000 of common stock to meet "new money" needs. However, a more potent business provider for Wall Street underwriters turned out to be the desire of owners of private companies to "sell out" or to invite the public to become a partner, and the decision of wealthy individuals, estates, etc., to dispose of large blocks of shares in corporations already publicly owned.

January-June 1946 sales of already issued securities skyrocketed to record-breaking levels, as disclosed in a recent Commercial & Financial Chronicle compilation (in millions) of such underwritings:

Year	First Half	Second Half	Total
1929	\$161.0	\$ 91.4	\$252.4
1932	8.0	10.4	18.4
1937	48.9	15.8	64.7
1938	32.0	33.8	65.8
1939	35.2	31.7	66.9
1940	62.9	63.4	126.3
1941	249.7	139.9	389.6
1942	57.5	73.5	131.0
1943	143.5	121.4	264.9
1944	141.6	137.1	278.7
1945	215.8	230.3	446.1
1946	440.2	...	...

This is the one magazine whose . . .

news



writers



readers



... are . . . all business.

to build up liquid funds out of which his estate can take care of inevitable imposts, it may well mean the sale of a good-sized portion of his assets at a sacrifice to his heirs when the date of such payments arrives. Consequently, many businessmen are (1) seeking greater diversification by shifting some of their wealth into more readily liquidable property, (2) providing greater marketability for the securities of the family corporations that account for such a large proportion of their personal assets, or (3) possibly taking both measures.

• **Advice Publicized**—A number of prominent Wall Street investment houses have been actively publicizing this situation over a long period. They have been strongly advocating taking the necessary steps to meet inevitable contingencies since "taxes are not paid with bricks and mortar." And it's been no secret that many owners of family companies have taken advantage of the recent boom in the new issues market to follow this advice.

Corporate taxes have probably also influenced the sale of many a recent block of stock never previously available for purchase by the general public. Despite the lowering of tax rates on business enterprises this year, Sec.

102 of the Revenue Code is a factor that still must be reckoned with, especially where family corporations are concerned.

This provision of the tax law was specifically designed by Congress to prevent "unreasonable" accumulations of profits, and to make sure that corporations paid out as dividends most of that portion of yearly earnings which is not required to be held for working capital or for financing necessary corporate expansion.

Renegotiation proceedings and the excess-profits tax took care of such matters during the war years, and Sec. 102 hasn't really been used now for some time.

• **Special Target**—With the war, renegotiation, and the excess-profits tax considerations gone, the Internal Revenue Bureau probably will no longer hesitate to put 102 into active use. A particular target is very likely to be the privately owned corporations which obviously enough might greatly prefer to let earnings accumulate in the business rather than pay them out as dividends to stockholders already in the high-tax brackets. With the public in as partners, however, the erstwhile family corporation might be less likely to draw the attention of the tax gatherers.

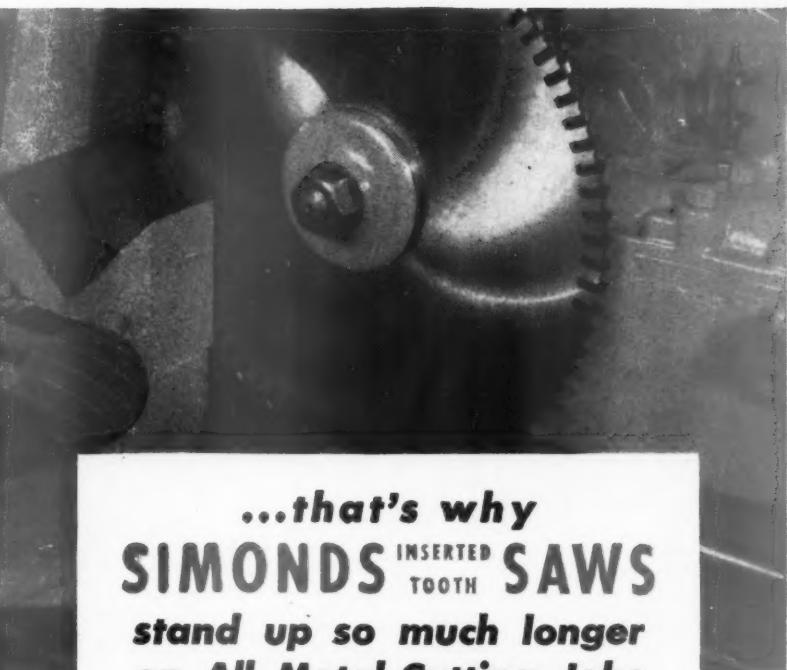
All things considered, therefore, the recent trend toward diffusion of corporate ownership would appear to be stimulated more by "legitimate" reasons than by any desire on the part of the chief stockholders to "cash in" and dump their business worries into the laps of others.

• **Edison Sale**—Listed among the larger better known family corporations soon to become at least partially publicly owned companies is Thomas A. Edison, Inc. Already registered for public offering are 100,000 shares of its class B non-voting common stock long owned by a family group, which includes the famous inventor's widow and a son, Charles Edison, who was a former Secretary of the Navy and Governor of the state of New Jersey.

Ed Schuster & Co., Inc., operator of one of Milwaukee's leading department stores and long strictly a family corporation, is about to take a similar step. Soon to be offered publicly will be some 163,000 shares of common stock, including 85,000 shares to be sold by the company, and 77,600 shares to be disposed of for the account of a stockholder group.

As so often happens where department store financing is concerned, Schuster's Wall Street debut will be handled by a syndicate headed by Goldman, Sachs & Co. This is the banking house which is playing a prominent role in the coming merger of the May Co. and Kaufmann's department store groups (BW—Aug. 3 '46, p 55).

Clears Chips Easily Under Heaviest Loading Conditions



...that's why
SIMONDS INSERTED
TOOTH **SAWS**
stand up so much longer
on All Metal-Cutting Jobs

CHIPS CLEAR EASILY BECAUSE Simonds' special design of the alternating bevel and square teeth keeps chips from welding to the plate or dragging on side of kerf. Curved gullets clear chips under all conditions . . . lessen danger of saw-breakage. What's more, these saws have extra strength, because each tooth is *wedged in place* . . . yet can be easily removed. For all jobs requiring exceptionally fast feeds and speeds, see your Industrial Supply Distributor about Simonds I. T. Saws. Or write the nearest Simonds office.

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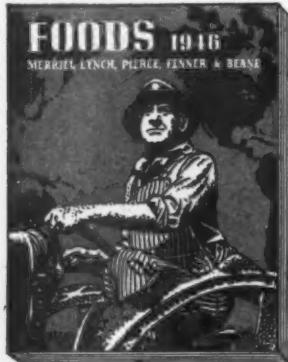
BRANCH OFFICES: 1350 Columbia Road, Boston 27, Mass.; 127 S. Green St., Chicago 7, Ill.; 416 W. Eighth St., Los Angeles 14, Calif.; 228 First St., San Francisco 5, Calif.; 311 S. W. First Ave., Portland 4, Ore.; 31 W. Trent Ave., Spokane 8, Wash.; *Canadian Factory*: 595 St. Remi St., Montreal 30, Que.

WALL STREET

Not by Bread Alone

Empty bakery shelves — following wartime shortages in other foods — have brought home to many an American, as never before, the importance of the traditional "staff of life." Yet bread is only one important product of the nation's number one business. Annual volume \$44 billion retail. However, its very size, importance and variety make this modern industry one of the most difficult to understand.

To provide investors with the necessary background to evaluate this vital



Newest Survey
... Food heads the list

enterprise, the nationwide investment firm of Merrill Lynch, Pierce, Fenner & Beane has issued "Foods — 1946*." Delving into particulars, this booklet examines in detail six important segments of the industry, provides individual analyses of 35 leading companies and brief pertinent facts on 23 others. Also included: Table showing principal brands of 33 prominent companies.

Pointing out that six million farms, worked by eleven million people, sell \$22 billion worth of cash crops and stock each year, the booklet goes on to reveal that over 1 million individuals process this vast bulk of goods, receive some \$1.7 billion in wages each year. (To run transport, staff the retail stores: another $3\frac{1}{2}$ million workers. Payroll: \$10 billion.)

Despite these impressive figures, America's food industry may have just begun to grow. Notes "Foods—1946"—new processes and war-changed eating habits plus more people with more money to spend than ever before have resulted in giving the industry a green light for expansion. Not starry-eyed, however, "Foods — 1946" hastens to emphasize that only with a return of normal amounts of raw food to market will it be possible to know what the full demand really is.

*For your copy of "Foods—1946," without cost or obligation, address your request to: Department "BW," Merrill Lynch, Pierce, Fenner & Beane, 70 Pine Street, New York 5, N. Y.

Adventure Capital

American Research, newest encourager of new enterprises, is out to enlist resources of insurance companies and trusts.

Another newcomer in the "venture capital" field was slated to make its Wall Street debut this week. Known as the American Research & Development Corp., it expects to engage primarily in developing new or existing enterprises, processes, and products.

A Boston company, the new outfit is backed by a group of New England businessmen and scientists.

• **Competition**—In looking for promising industrial opportunities to finance, American Research & Development will be vying with a formidable list of other companies that have the same idea. These include Boston's New Enterprises, Inc. (BW—Aug. 10 '46, p36), Pittsburgh's T. Mellon & Sons (BW—Jun. 15 '46, p21), and Manhattan's J. H. Whitney & Co. (BW—Feb. 23 '46, p70) and Rockefeller Bros. Co. (BW—Jun. 15 '46, p21).

Given sponsorship in the new issues market by such representative investment houses as Boston's Estabrook & Co. and Manhattan's Harriman Ripley & Co., American Research & Development will initially offer for public sale 200,000 shares of its common stock at \$25 per share.

• **Institutions Must Share**—Not all this \$5,000,000 offering, however, can be sold to individual investors. At least \$1,500,000, under the selling agreement, must be subscribed by such "institutional investors" as investment companies, life insurance companies, educational institutions, and research or educational foundations.

Temporarily president of the new corporation is one of New England's more colorful bankers and businessmen, Ralph Flanders. Ex-president of Boston's Federal Reserve Bank and a prolific writer on economic and technical subjects, Flanders has long been a prominent machine-tool manufacturer. He is now president and board chairman of Jones & Lamson Machine Co.; also an officer, director, or trustee of other tool companies, National Life Insurance Co. of Vermont, and Norwich University and Massachusetts Institute of Technology.

• **Scientific Advisers**—In addition to a directorate composed of other prominent manufacturers, financiers, and lawyers, the new enterprise will have an advisory board of such figures in education and science as Brig. Gen. Georges F. Doriot, Dr. Karl T. Compton, Edwin R. Gilliland, and Jerome Hunsaker.

Gen. Doriot now heads the research and development work of the Army General Staff. However, he will soon return to Harvard Business School as assistant dean and professor of industrial management and he is then expected to give a good deal of his time to American Research. (He is also a director of New Enterprises, Inc., but it is denied that there is any connection between the two companies.)

• **Authorities**—Dr. Compton has not only headed M.I.T. since 1930 but has long been recognized as one of the nation's leading physicists. Gilliland, M.I.T. professor of chemistry, ranks high in the field of chemical engineering. Hunsaker is head of its mechanical and aeronautical engineering department, and an experienced businessman as well, being a director of such prominent corporations as Shell Union Oil Co. and the Sperry Corp.

The mainspring behind American Research's recent organization is Flanders' concern over the degree to which the nation's liquid wealth has lately been tending to concentrate in fiduciary hands. His alarm over this stems from a belief that this trend, as



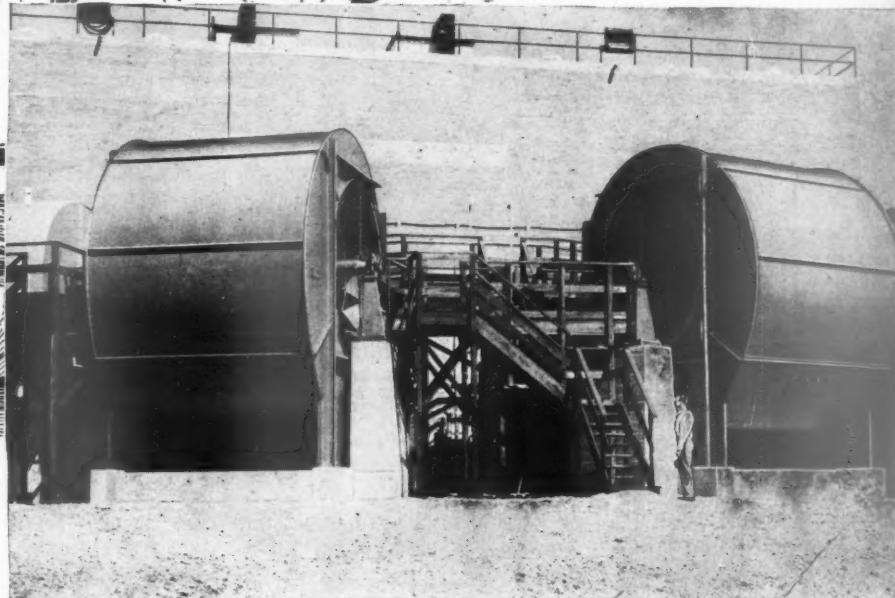
BANKER'S SPECIAL

A distinctly gilt-edge aura surrounds Edward Hopkinson, Jr. (above), who was nominated last week as the next president of the Investment Bankers Assn. of America. Hopkinson, senior partner of the Philadelphia investment house of Drexel & Co., was formerly a member of the law firm of Dickson, Beitler & McCouch (now Drinker, Biddle & Reath). From 1929 to 1940 he was a partner of J. P. Morgan & Co., long closely affiliated with Drexel. He previously served I.B.A. as governor and as vice-president.



THEIR VENTILATION IS OUTDOORS

NO, IT'S NOT ON FIRE! It's simply dinner time for this family in desolate Chinese Turkestan. The thick blue smoke is coming from the "kitchen range" (a fire on the dirt floor of the "home"). Some of the smoke escapes through the openings of the shelter, though needless to say, these folk go outside for ventilation!



GIANT "Buffalo" INSTALLATION
delivering 33,000 TONS of air every
24 hours! An example of the way
"Buffalo" tailors its fans for most effec-
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"Buffalo" FANS DO EFFECTIVE AIR JOBS Wherever You Need Them

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"Buffalo"
TYPE "LL"
VENTILATING
FANS

What's DIFFERENT about a Californian?

...the way he lives

Lots of sunshine and a setting of natural beauty have made the average Californian a devotee of "life in the open." It's easy to enjoy outdoor life in California, and the citizens are willing to take the time to enjoy it.



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...a fact-based study...will help you plan your business if your plans include California. Write Dept. AD, 300 Montgomery St., San Francisco 20, or 660 So. Spring St., Los Angeles 54, for a free copy.

...and the way he banks

Unique is the statewide system of banking exemplified by Bank of America. Nearly 500 branches situated in every important town or city provide a valuable banking service that is statewide in scope, yet local in community understanding.

Bank of America, a member of the Federal Reserve System and the Federal Deposit Insurance Corporation, has main offices in the two reserve cities of California—San Francisco and Los Angeles.

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BLUE AND GOLD BANK OF AMERICA TRAVELERS CHEQUES ARE AVAILABLE THROUGH AUTHORIZED BANKS AND AGENCIES EVERYWHERE

time goes on, will make it more and more difficult to finance the flow of new corporate undertakings that is so necessary if the nation's production, employment, and wealth are to continue to expand under our present economic system.

• **Reservoirs of Capital**—According to Flanders, there are now two large-scale repositories of wealth—the life insurance companies and the investment trusts—which have a tremendous stake in the future prosperity of business but which heretofore have never had to be particularly concerned with situations where "venture capital" is needed.

As he sees it, these two reservoirs of capital must hereafter concern themselves with those "pioneers" who enter the business field with new ideas or the alternative will be a static or frozen economy. And he hopes that American Research will be the vehicle—largely financed by their money and directed by the most capable men available in business and technology—through which those two powerful segments of business can make their contributions to the future from now on.

• **Plan of Operation**—American Research for a time will invest all its capital funds in government securities and use its income from them to carry the overhead of its initial small organization. Whatever business it takes on will consist of thoroughly investigated, carefully selected, diversified projects requiring from \$50,000 to \$500,000 of financing.

Some failures are expected. Flanders, however, is confident that the new company will subsequently prove "financially successful" and "an unquestioned social asset to the country."

• **Legal Angles**—In some states, New York included, life insurance companies can only invest in "legal" securities, mainly bonds. However, many others are not so restricted in that respect. In Connecticut, for example, companies have been able since 1945 to invest up to 5% of their total assets free of legal restrictions, and state authorities are now willing to see them purchase moderate amounts of American Research shares. In Massachusetts, also, there is no law which would prevent a life company from investing in such stock.

Ordinarily, five states prohibit investment trust purchases of shares of companies not at least three years old. All these, however, have recently consented to allow the investment of a small percentage of such a company's total resources in new enterprises such as American Research.

• **SEC Helps**—The Securities & Exchange Commission has been similarly cooperative. It took an unprecedented step last week when the American Research financing was released for offering by waiving certain restrictive provisions of the Investment Co. Act.

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7, 1946

New Issues Shrink

**Respite gives Wall Street
chance to recover slightly from
its recent overfeeding. Prices
cut to move some offerings.**

As expected, August thus far has witnessed a drastic shrinkage in the number of new corporate security underwritings. Because of this respite, Wall Street's new issues market has been showing signs of having recovered from its recent and rather serious attack of indigestion (BW—Aug. 3'46, p68).

• **Little Unanimity**—Seemingly, however, there is still no unanimity of opinion among prominent underwriters when it comes to the near-term outlook for that section of Street activity.

The underwriting group headed by Kuhn, Loeb & Co., which has been handling the up-to-now very "sticky" offering of the new Willys-Overland Motors \$4.50 preferred stock issue (BW—Jul. 13'46, p99), for example, apparently sees some hope that things will be much better in a month or so. Consequently, the price maintenance agreement covering that issue, which binds syndicate members not to sell any of the shares at less than the offering price (\$100), was extended last week for another 50-day period.

The syndicates involved in the recent Wall Street debut of the Hoving Corp. (BW—Jun. 8'46, p79) and Jack & Heintz Precision Industries (BW—May 25'46, p115), however, would seem to feel very differently about the extent of recovery to be expected.

• **Issues Drop Quickly**—These two underwriting groups, both headed by Blyth & Co., Inc., last week decided to take their losses now and not risk the chance of having them increased later. After being able to sell only about two-thirds of each issue, according to reports in the Street, they dissolved their underwriting agreements and permitted the shares to find their proper levels.

When this action was taken, the Hoving Corp. common, originally offered at a price of \$23.50 a share, promptly sank to \$18.25 bid, \$19 asked, in the over-the-counter market. The Jack & Heintz common stock, which had been offered to buyers at \$17, just as quickly nosedived to only \$12 bid, \$13 asked.

• **Some Improvement**—The remnants of recent sticky offerings of new bond issues that still remain on the shelves of underwriters are reported to be meeting with a somewhat better reception from the buying public. However, things are not in first class shape by any means.

To move any large segments of dealers' bond inventories, instead, cut-price tactics have had to be followed.



S—T—R—E—T—C—H—E—D to the limit!

The adverse conditions which virtually every business is experiencing have likewise prevented the supplying of Follansbee products in sufficient volume to meet demands. >>> In view of the urgency of their needs, our customers have displayed an understanding tolerance of the situation which is gratefully appreciated. >>> In spite of all possible efforts, present conditions indicate that appreciable relief cannot be expected in the immediate future. *A highly important factor will be the co-operation of the trade and others in collecting and selling scrap to maintain steel production.* We in turn pledge that our facilities will be stretched to the very limit—and that our customers will receive all possible assistance.

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Salem Engineering Co., engineers and builders of Salem Automatic Locker Plant, can give you facts and figures on this profitable market.

Write Salem today about your plans or ideas. We can help you.

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What we did for this slipper manufacturer we can do for you. Consult Central's 46 years of paper engineering for applications to fit your processes or products. Alert your ideas. Write for Industrial Paper Book.

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PRODUCTION

A Milestone in Radiant Heating

A. O. Smith Corp.'s new plant will use 120 water heaters to circulate 180,000 gal. an hour through 40 miles of pipe, mostly laid in grids, thus providing large-scale test of firm's own product.

New operating data on radiant heating for industrial plants are in prospect as a result of an experiment undertaken in the construction of the A. O. Smith Corp. water heater plant at Kankakee, Ill.

Described as the largest on record, the radiant heating system utilizes 120 separate water heaters instead of a central power plant. The Smithway-Burkay water heaters (BW-Apr. 27 '46, p59) to be used are similar to those planned for manufacture in the plant. The experiment consists of using a variety of piping materials and piping constructions.

The new plant is also noteworthy for its proposed production and organizational setup. Although actual manufacture is not to begin until September, information has been released to show the plant probably will be highly efficient.

• **Mostly One-Story**—This factory, which will produce at the rate of 250,

000 heaters per year, is being built at an estimated cost of \$3,500,000 for land, building, and machinery. It will provide employment for 750 to 1,000 persons. It is largely of one-story construction, covering 381,750 sq. ft. Total usable space is 415,788 sq. ft.

The plant is divided into 48 bays, each 25 ft. wide, running the full width of the building (315 ft.). Two water heaters, operated on natural gas, serve each bay. Water—180,000 gal. an hr.—will circulate through 40 miles of piping. Temperature of the water will be 140 deg. maximum, and it is expected that floor slab temperature will be about 85 deg. Engineers predict that the system will maintain an air temperature of 65 deg.

• **Types of Pipes**—Piping consists of wrought iron, copper, and copper-coated steel. The wrought iron ranges in size from 2 in. down to $\frac{1}{4}$ in.; the copper

YOU FURNISH THE STEEL LYON will make the product

Lyon facilities for the production of a wide range of sheet steel products are to meet needs of your sheet requirements. In spite of the excellent job being done by the steel producers, there just isn't enough to go around.

If you have steel on hand, or available, Lyon can help you in one of two ways:

I. SPECIALIZED CONTRACT PRODUCTION

Wra will manufacture to your specific requirements, sub-assemblies or parts (see example illustrations of contract items) in gauges No. 8 and lighter up to 30; in Lyon production run quantities.

II. STANDARD LYON PRODUCTS

To complete your plant or conversion program we will accept your steel and supply you with any selection of "Lyon Standard Products", a few of which are: Steel Shelves, Lockers, Shop Equipment, Kitchen Cabinets, Filing Cabinets, Gravity Conveyors, etc. See illustrations.

Get in touch with your Lyon dealer or your closest Lyon District Office.

LYON METAL PRODUCTS, INCORPORATED
General Offices: 101 Monroe, Detroit, Michigan
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GEARING A SURPLUS TO A SHORTAGE

With an excess of production facilities and a deficit in steel receipts, Lyon Metal Products is promoting a "treasure hunt" among prospective customers. The idea was born a few weeks ago when an auto maker, unable to get steel—short Lyon to fill an order for shelving, said he'd furnish the material. Believing that most manufacturers have some steel tucked away, Lyon suggested a search, netted 20 more orders—ranging from 50 to 1,300 tons. The idea, translated into an advertising campaign (above), is expected to net a lot more.



More Pages — August HOLIDAY was bigger. September issue will be bigger still — more sparkling pages, more room for both editorial features and resultful advertising. At last we're getting more of that exceptionally fine paper on which HOLIDAY is printed.

More Features — A "bigger package" for the reader...more of those exciting color pages on What to Do, Where to Go—the practical approach everybody wants to Recreation, Travel, Play.

More Advertising —

Old advertisers, "surprised and delighted" (to quote their own words) at the "amazing response" they've had, are taking more space.

More Advertisers — New advertisers (who want to reach active, spending families in the able-to-buy bracket) have signed up for space. *Without additional paper, all advertising pages for the remainder of 1946 would have been over-sold months ago.*

More Tie-in Promotions — 171 leading stores in 150 cities have based window and departmental displays on exclusive HOLIDAY tie-ins. They are enthusiastic about the results. They're asking for more!

More Business Ahead

The world of travel and vacation activity is stirring as never before. Travel-hungry, pleasure-loving, active-minded people want to get up and go. They are ready to spend money in unprecedented amounts. And in making their plans, these people look to HOLIDAY as an authentic guide and inspiration.

Holiday
A CURTIS PUBLICATION

INDEPENDENCE SQUARE, PHILADELPHIA 5, PA.



N*ow I'm saving up to buy the body"*

Remember when the chassis cost \$4,000 . . . and the body another couple of thousand . . . the horn was extra . . . the tires . . . the bumpers? Mass production changed all that.

But, do you realize that there is a new method available to reduce the cost of mass production? We, at Nichols, call it "Mass Precision". It involves the use of modern machines, engineering imagination, skilled workmen and the finest gaging equipment. It results in accuracy to "quarter-tenths" and surface finishes to "millionths"—on a mass production, interchangeable basis—at a price that is lower than most manufacturers can achieve when using less accurate methods.

To see what Nichols has done for others, write for the new booklet "Mass Precision"—it suggests what we can do for you.

W. H. NICHOLS & SONS, 48 Woerd Avenue, Waltham 54, Mass.



"Accurate" *Nichols*

PRECISION ENGINEERING AND MANUFACTURING FACILITIES FOR MASS PRODUCTION

from 1 in. to $\frac{1}{2}$ in. The steel is $\frac{3}{8}$ in. Bundy tubing.

Eighty percent of the installation in the floor is of grid-type construction, consisting of headers (trunk pipes) and laterals of wrought-iron pipe. Some of the grids have long 2-in. headers (140 ft.) and short $1\frac{1}{2}$ -in. laterals (20 ft.), while others consist of 20-ft. headers and 140-ft. laterals. Pipe spacing ranges from 4 ft. down to 8 in.

• **Advantages Claimed**—The grid-type construction is said to be the best type to meet possible future changes in floor arrangements and foundations because new headers can be installed as needed. It permits mass production of headers and laterals and makes possible many welds at the point of manufacture rather than on the job. It also permits the use of random lengths of pipe.

Nearly all of the other 20% of the plant floor has been covered with a combination of grid-type and continuous coil construction. Headers were introduced into the continuous coil construction for two principal reasons: (1) to reduce resistance to flow where it was too great for the capacity of the pumps, and (2) to guard against future changes in floor arrangement and foundations. The effect of using headers in a continuous coil panel is to break it up into two or three smaller continuous coil circuits.

• **Byproduct Heat**—In one area, a single continuous coil was used for purely experimental reasons. It is near a large baking furnace in which heat will exceed 1,600 degrees. By circulating water through this coil without heating it, the rate of heat transfer through the concrete floor slab can be determined.

All of the heating installation on the mezzanine is of Bundy tubing, the only tubing available that would fit into the reduced thickness of the concrete slab that forms the floor. The tubing is of $\frac{5}{8}$ -in. outer diameter with a wall thickness of 0.049 in. Grid-type construction is used, with center-to-center distances varying from 6 in. to 12 in., depending upon the estimated rate of heat loss.

• **In Ceilings, Too**—For the first-floor offices, wrought-iron piping is laid in a grid. Then, in the ceiling of the first-floor offices, auxiliary wrought-iron surface is placed around the perimeter to add radiation for the second-floor offices at the windows. Copper in grids and continuous coils is installed in the ceiling of the second-floor offices, so that heat will radiate downward.

The system has flexibility, since the plant is heated, in reality, by 120 small systems. Any area of the plant can be turned on or off. No serious heating problem arises if a bay or two is shut off because of floor rearrangement. The whole heating system can be serviced by a single man who need be acquainted only with a water heater. Any single

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In the radiant heating system in the new A. O. Smith Kankakee (Ill.) plant, hot water will be furnished by 120 individual heaters (above). Water enters from the top, flows down into coils which, in effect, are walls of the combustion chamber.

area can be heated with peak efficiency even though the rest of the plant is not in operation.

• **Other Features**—Four Smith-Burkay Heaters will maintain 42 deg. temperature in the 100,000-gal. water tank which serves the sprinkler system. As an additional experiment, radiant heat from circulated antifreeze will be used in a section of the sidewalk outside the entrance lobby for snowmelting.

Plant warmth will be controlled with ten outside master thermostats actuating ten to 15 submaster thermostats governing water temperature. The purpose is to maintain a ratio between outside and inside temperature. This ratio will be adjusted as necessary.

• **Production Plans**—Six conveyor lines, each of which can operate independently, form the backbone of the plant's production system. Small parts will be delivered to bins, unloaded and inspected, and a complete set of individual parts required for each heater will travel on a pallet alongside each heater on the final assembly line. This will obviate the timing of subconveyors. Subsidiary lines will be used for loading pallets directly from bins.

• **Organization**—Production and purchasing, usually a split responsibility, will probably be under single supervision, with authority over purchasing, production, scheduling, and delivery.

A complete quality control system is planned, under a special division to which inspectors will report. This control will extend as far back as the stamping operation. Tools, standards (including costs and rates), and maintenance will probably be the responsibility of engineering.



Accent on SALES

Every Gaylord container — whether it be shipping box, folding carton, or kraft bag — is designed with two basic factors in mind —

- It must safely carry and protect the product
- It must have sales appeal

CORRUGATED AND SOLID FIBRE BOXES

FOLDING CARTONS

KRAFT GROCERY BAGS AND SACKS

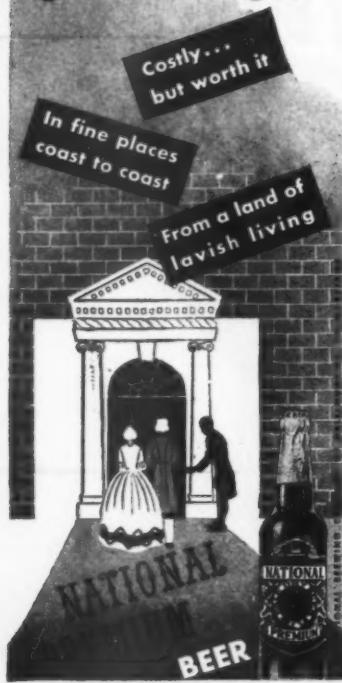
KRAFT PAPER AND SPECIALTIES

GAYLORD CONTAINER CORPORATION General Offices, SAINT LOUIS

New York • Chicago • San Francisco • Atlanta • New Orleans
Jersey City • Seattle • Indianapolis • Houston • Los Angeles
Oakland • Minneapolis • Detroit • Jacksonville • Columbus
Fort Worth • Tampa • Cincinnati • Dallas • Des Moines • Portland
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gracious living...



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Valuations
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Fifty Years of Service
1896-1946

Into the Organics

Wyandotte Chemicals Corp.
maps expansion plans that will
make it a producer of glycol and
the synthetic detergents.

Wyandotte Chemicals Corp., privately owned giant operating on Detroit's outskirts, will throw \$25,000,000 from its cash assets and reserves into expansion during the next year or two to enter the field of organics, hitherto untouched by it.

The start of this program is already apparent in the South Works of the plant, where a modern glycol plant is going up, engineered to produce 35,000,000 gal. of antifreeze and other glycol derivatives yearly.

• **From Soda Ash**—Like many other inorganic producers, Wyandotte has been built around the production of soda ash and caustic soda. In fact, soda ash, plus a business feud, was the reason for the company's start in 1890. Capt. J. B. Ford, having helped found Pittsburgh Plate Glass Co., had a row with his partners, left them, and set up the Ford Glass Co. in Toledo, the corporate forefather of Libbey-Owens-Ford Glass Co.

Soda ash, needed for making glass, was largely imported in those days, and most sources had been tied up by Pittsburgh Plate.

Ford, then in his eighties, went to Michigan to look at salt bed areas, with hope that sodium carbonate could be extracted from them. At Wyandotte, 20 miles downriver from Detroit, he found what he was looking for and set up the Michigan Alkali Co.

• **Vast Consolidation**—Today that company and the J. B. Ford Co., set up later to make household and industrial cleaners, have blossomed into a consolidated corporation of vast scope. Stockholders, today around 100, are still nearly all members of the Ford family, and because they are the sole owners, there are few public figures on its operations.

But W.C.C. is generally credited with about \$60,000,000 in assets and annual sales of \$45,000,000, covering shipments of 1,300,000 tons of finished products each year. That does not put it in the class of such chemical giants as du Pont, Union Carbide, Allied Chemical, Dow, and Commercial Solvents, but it does entitle it to rank among the first dozen producers.

• **Two Miles of Dockage**—The company's two plants in Wyandotte, on about 700 acres, include almost two miles of dockage along the Detroit River. These plants presently produce alkalis such as soda ash, soda bicarbonate, calcium chloride, and others;

a large amount of chlorine; 200 tons of dry ice daily; and other related products. Forty coke ovens supply the usual by-products.

The company owns its raw materials sources—a limestone quarry at Alpena, Mich., coal mines at Curtissville, Pa., and brine deposits under the Wyandotte plants. Four freighters of its own bring materials in, and some 50 miles of railway trackage, also company-owned, haul cars between switch points. • **And Now Glycol**—Wyandotte settled on glycol as its first organic product because its manufacture requires caustic soda and chlorine, both major W.C.C. products. Beyond that, glycol is a good jumping-off material for output of other chemicals, and a large market exists for it.

The process to be used by Wyandotte differs somewhat from customary manufacture. Actually, the product will be an ethylene-propylene glycol, and may prove to have advantages in processing, costs, and quality. Facilities for this production will be completed within a year.

The largest general use of glycol is for auto radiator antifreeze, but it also finds a broad auto market in brake fluids. It is used also in the processing of silk, wool, cotton, and tobacco, and in the manufacture of fumigants and cosmetics.

• **Synthetic Detergents**—The second step of the expansion will be the erection of a new plant to produce synthetic detergents—soapless cleaners of wide application which are used in the dry cleaning industry and in industrial



Emory M. Ford represents the fourth generation in a dynasty which built Wyandotte Chemicals Corp. Following family tradition, he started work at the plant in overalls, succeeded his father as president in 1943.

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**A book
every Advertising
and Sales Manager
ought to have**

**It was published for training men—
but you'll be impressed by the long
list of top-ranking companies which
are successfully using training films
as a promotion medium**

This book wasn't written for you. It was written for production and training men: to show them where they can rent, borrow, or buy the hundreds of training movies and slide films which have been made by manufacturers, government, and film producers.

Nevertheless, we think you'll like to see it. For it will give you a quick, factual picture of which companies are spreading knowledge, building acceptance, and demonstrating the proper use of their products through *training films*.

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**Eastman Kodak Company
Rochester 4, New York**

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—another important function of photography

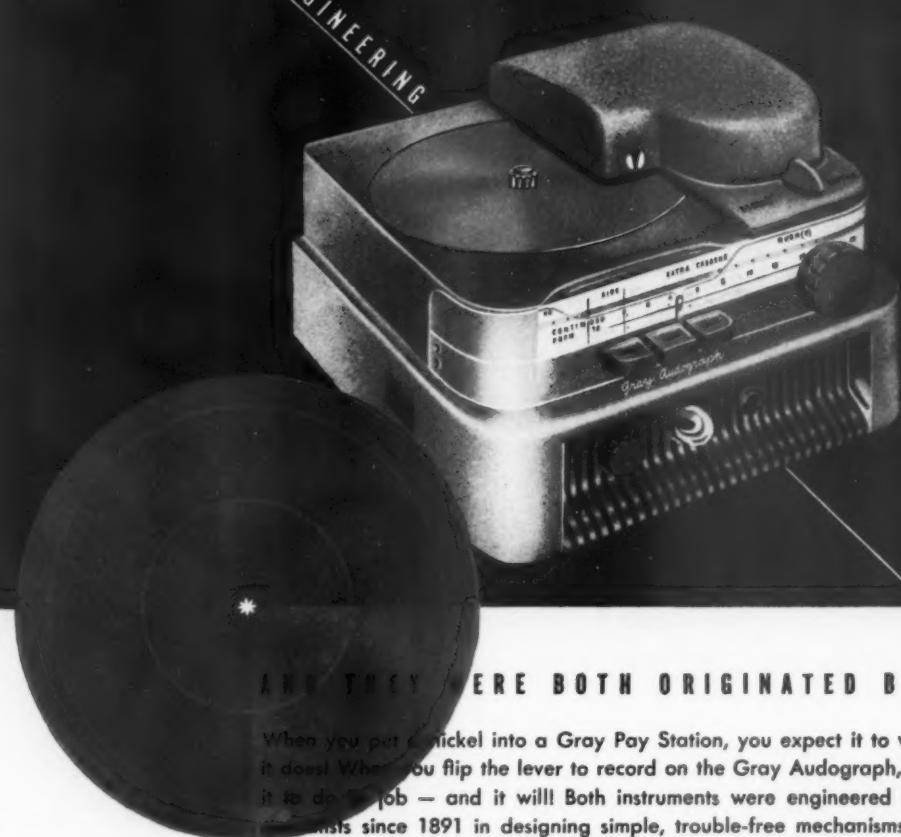
Kodak



THE TELEPHONE PAY STATION AND THE NEW GRAY AUDOGRAPH

HAVE TWO THINGS IN COMMON

SIMPLE TROUBLE-FREE ENGINEERING



AND THEY WERE BOTH ORIGINATED BY GRAY

The Gray Audograph records on unbreakable plastic Flexograph discs available in three sizes: $5\frac{1}{4}$ " — over ten minutes on each side; $6\frac{1}{2}$ " — over 16 minutes on each side and $8\frac{1}{2}$ " — over 31 minutes on each side.

When you put a nickel into a Gray Pay Station, you expect it to work — and it does! When you flip the lever to record on the Gray Audograph, you expect it to do its job — and it will! Both instruments were engineered by Gray — engineers since 1891 in designing simple, trouble-free mechanisms. The Gray Audograph is unlike any other dictation instrument in design, operation and performance. It is only $9\frac{1}{2}$ " x $9\frac{1}{2}$ " x $6\frac{1}{2}$ " (the size of a letterhead) and weighs but 13 pounds. You can dictate more than 60 minutes on a single Flexograph unbreakable plastic record. You can stop dictating in the middle of a word and start instantly without voice distortion or time lag! There are so many other exclusive features it takes a booklet to describe them all — send for your copy.

Distributors have been appointed in New York and Hartford. Responsible persons will be selected for the Gray Audograph franchise in other cities.

THE GRAY MANUFACTURING COMPANY

W. E. BITMARS, PRESIDENT



16 ARBOR ST. HARTFORD, CONN.



230 PARK AVE. N. Y.

E
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N

applications of nearly endless variety.

Plans call for substantial enlargement of present facilities for producing chlorine at Wyandotte. At the same time, processes will be modified for production of caustic soda, to increase output of this requirement for the rayon, paper, soap, and industrial chemistry fields.

Caustic soda is in particularly heavy demand at this time as a result of wartime expansion of facilities to make rayon cord for automotive tires.

Heart-Tester

New electronic device for photographing the motions of cardiac muscles may be used in industrial health surveys.

An electronic device which enables medical science to detect heart disease in its early stages is expected to gain widespread employment soon in mass surveys among industrial workers. Tests are patterned after familiar ones for discovering tuberculosis.

• **Supplements Cardiograph**—Known as the electrokymograph, the apparatus was developed in two years of experimentation at Temple University Medical School, Philadelphia, in collaboration with the U. S. Public Health Service. It enables the doctor to photograph accurately the motion of the heart, something impossible until now, but which is valuable in the early diagnosis of heart trouble.

The device is in no sense a replacement for the cardiograph, however. It merely provides a supplementary method of studying the heart's physiology. The method consists of reflecting the muscular motions of the heart on a

fluorescent screen, converting them into light impulses by means of a photoelectric cell, and thus revealing any abnormal impulses.

• **Quicker Than the Eye**—Dr. Bert R. Boone, who helped with the experiments, explains that the physician formerly looked at the heart with X-rays, but that the motions of the organ as recorded through this method were more complex than the eye could fully comprehend.

The U. S. Public Health Service is to carry out the field check work. It considers heart disease the country's No. 1 killer and reports that deaths from this cause are on the upgrade. Figures for 1944 show the U. S. death rate from cardiac illnesses was 315.4 per 100,000 persons, compared with 292.5 in 1940.

• **Now in Production**—The electrokymograph resembles a small black radio case. It is now in production at Cambridge, Mass. Early purchasers include the University of Pennsylvania and the University of California (two sets each). They now cost about \$750 to produce, but that figure is expected to be cut about in half later.

For developing the machine, Dr. Boone, four other physicians, and the Temple Medical School were awarded the Silver Medal Research Award of the American Medical Assn.

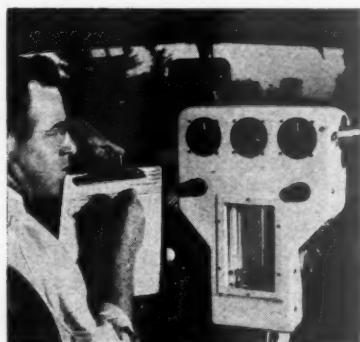
RETORT ALLOYS IMPROVED

The problem of making liquid fuels and gas from lignite and sub-bituminous coals which abound in the West (BW—Aug. 25 '45, p47) has come to be largely one of finding alloys that will stand up satisfactorily under the 2,000-degree heats involved in the so-called Parry process of the Bureau of Mines.

Awarded a \$150,000 appropriation for continuing its research, the bureau

Device to Aid Crankcase Design

Auto engineers know that the quicker combustion gases can be cleared from engine crankcases, the



longer it would be before sludge forms and corrosion occurs. But crankcases have generally been designed with little more than past experience and guesswork as guides to the speed with which they could be ventilated.

Now Ford engineers have developed an accurate portable means of measuring crankcase ventilation system efficiency at all speeds and under all conditions. Air flow into the engine and outward gas flow are indicated on two dials of the portable apparatus (left), and blow-by—or gas-forced past piston rings into the crankcase can also be accurately measured.

VENUS

VELVET

PENCILS ARE

STRONG



This means that the lead is actually bonded to the wood. You can't buy better office pencils!

And now... pre-war, real rubber erasers are back!

VENUS

—by the makers of the famous VENUS Pens

AMERICAN LEAD PENCIL COMPANY



LOWER PRICES RAISE EVERYBODY'S WAGES

You and I—all of us—are consumers. And as consumers, we are the real bosses of management and labor and money.

If we all stop buying because the prices of goods and services get too high, everything stops.

But if we hold prices low enough to make it possible for all of us to buy more and more, everybody prospers.

We need to remember that real wages have to be measured by what dollars will buy. It never helps anybody to be paid more dollars if the buying power of his dollars shrinks at the same time.

How can we keep prices down? By the simple device of producing more. We know how to do it, and we have improved machines and methods and materials.

By producing more, industry becomes more prosperous. It can afford to sell its products for less, and still pay high wages, in dollars that buy more.

We can have our cake and eat it too.

Geo. R. Trundle Jr.
President



This organization of over a hundred trained engineers has twenty-seven years of consulting management engineering experience. We invite you to write for more information, or to request a personal interview in your office.

THE TRUNDEL ENGINEERING COMPANY

Cleveland, Ohio, Bulkley Building
CHICAGO, City National Bank Building,
208 S. LaSalle Street

NEW YORK, Graybar Building,
420 Lexington Avenue

in September will operate its commercial-sized retort at Grand Forks, N. D., in 2,000-hour runs for a total approaching 6,000 hours.

Original columns in the retort did not stand up under the heats generated in the process. Last year columns made of Pluramelt, an Allegheny Ludlum Steel Corp. product, took 1,400 hours of operation without slumping. The Pluramelt consisted of a $\frac{1}{2}$ -in. metal sandwich consisting of a $\frac{1}{2}$ -in. sheet of mild steel covered on each side with $\frac{1}{8}$ in. of 28% chromium alloy.

At the bureau's station at Golden, Colo., a small retort has operated satisfactorily with columns of steel covered on both sides with $1/100$ in. of sprayed-on chrome. Cast chrome-nickel parts for a new column have been delivered and will be tested.

It is hoped the process will develop cheap fuels for industrial uses, including possibly beneficiation of Minnesota's limitless low-grade iron ore deposits.

DUPONT EXPANSION

Major expansion of research and nylon production facilities is planned by E. I. du Pont de Nemours & Co., it was revealed last week when du Pont:

(1) Asked the Court of General Sessions in Wilmington for authority to relocate a highway now traversing a section of the proposed new research center area, and,

(2) Announced it will build a \$20,000,000 nylon yarn plant on a 600-acre tract near Chattanooga, Tenn., which it purchased early in 1944.

The research center reportedly will cost \$17,000,000. It will represent an enlargement of du Pont's experimental station, and will be "devoted principally to efforts to produce new chemical products."

The new nylon plant, together with expansions of existing plants at Seaford, Del., and Martinsville, Va., will triple current production.

TESTOSTERONE SOURCE

Sarsaparilla root has been found to be a good source of testosterone (BW—Dec. 22 '45, p. 46) in a process now under way at Syntex, Inc., in Mexico City. Chemists there say the process is not secret, and that production costs are favorable in comparison with other syntheses, and with extraction from the spinal cords of animals.

Advantage of Mexican location is that sarsaparilla and other saponins grow in sufficient quantities to make the process economical.

Testosterone is a male hormone which has gained clinical acceptance in the treatment of impotence and the disorders accompanying the male climacteric.

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...for a new plant location?



IF you're seeking a location for your new plant or warehouse, tell us what you need. We'll give you complete information about sites on the Erie Railroad that meet your requirements.

Quick and *confidential*, of course.

You waste no time or money "prospecting". Most important, you greatly increase your chances of finding *exactly* the location you need.

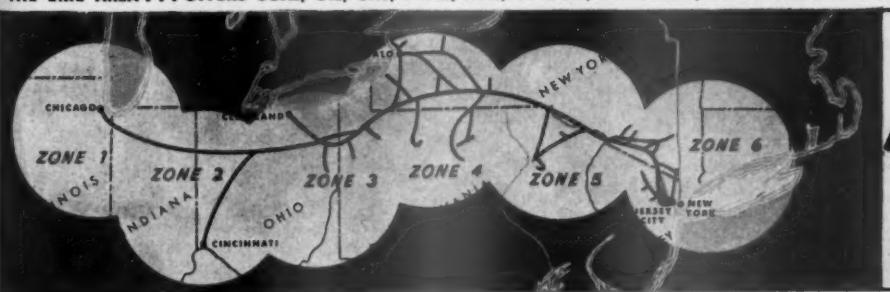
By locating on the Erie Railroad, the ad-

vantages of the Erie Area are opened up to you... great and prosperous markets; abundant materials for most types of industries; power for every purpose; skilled labor; unexcelled transportation for your raw materials and finished products.

For specific data on the many desirable sites available... for facts on power costs; availability of labor; local regulations and taxes; and any other information, write A. B. Johnson, Vice President, Erie Railroad, Midland Building, Cleveland 15, Ohio.

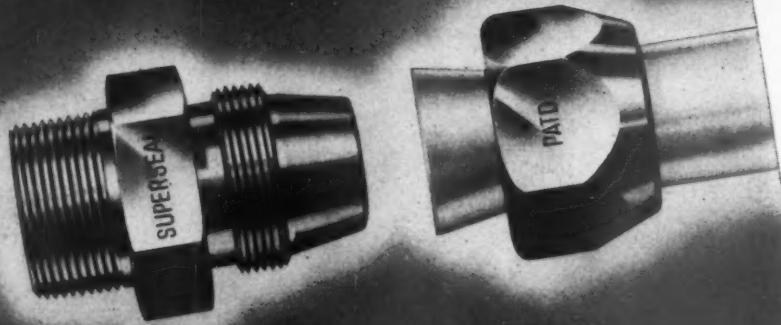
Erie Railroad

THE ERIE AREA . . . OFFERS COAL, OIL, GAS, STEEL, SALT, GYPSUM, LIMESTONE, OTHER BASIC MATERIALS



GRINNELL

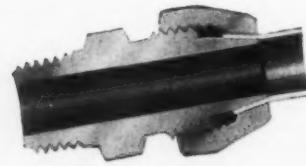
PIPING
PROGRESS



New Possibilities for Steel Tubing

Question: What recent development has made possible greatly expanded use of light wall steel tubing?

Answer: A new flared tube fitting which requires only a 10 degree tubing flare.



No longer is the difficulty of making a satisfactory joint with light wall steel tubing a serious hindrance to its widespread use. The Grinnell Superseal Flared Tube Fitting eliminates this obstacle by requiring a tubing flare of only 10 degrees. Tubing can be flared in a single operation. There is no weak point. Joints are leakproof under maximum vibration and pressure. Fitting can be connected and disconnected repeatedly without injury to the tubing.

WHENEVER PIPING IS INVOLVED

Here is another typical Grinnell development in piping — an improved tube fitting which makes possible the use of less costly steel tubing and reduces production flaring and assembly costs.

The Superseal Fitting is another product of

Grinnell's specialized piping knowledge, continuous laboratory research and experimentation. It is further proof of the ability of this company to supply everything for piping — from a tiny tube fitting to a complete power or process piping installation.

GRINNELL COMPANY, INC.
Executive Offices: Providence 1, R. I.
Branch warehouses in principal cities.

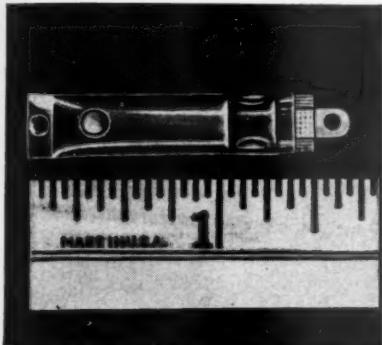
Manufacturing Plants:
Providence, R. I.; Cranston, R. I.; Atlanta, Ga.;
Warren, Ohio; Columbia, Pa.

GRINNELL

NEW PRODUCTS

Midget Thermostat

Development of a midget $\frac{1}{2}$ -oz. thermostat, adaptable for electric heating pads and blankets, has been announced by Mechanical Industries Production Co., 200 Ash St., Akron 3. Proposed uses range from food warmers, percolators, and other appliances, to electric



motors, air conditioning, refrigeration, gas heating, hot water systems, car heaters, and radio crystals.

The thermostat is metal jacketed, making it responsive to temperature and at the same time enabling it to withstand external pressure without affecting the setting. It is adjusted at the factory to meet specifications for each particular use.

Available in three styles and in either standard or waterproof models, the unit has oversize contact points made of $\frac{1}{8}$ -in. spun-in silver. The standard model 3-100 is designed for use at 300 watts, 110 of alternating current, and a non-inductive load. The units can be preset for use up to 250 F. Other models are available for settings up to 1,000 F.

Materials-Handling Equipment

High-tensile steel replaces the usual hot-rolled low-carbon steel in a new line of materials-handling equipment of Monroe Auto Equipment Co., Monroe, Mich. The result is an average 40% weight reduction with correspondingly greater payload. Lighter unit weight also reduces shipping costs.

The line consists of six products in various standardized sizes, including 14 units of platforms, skids, and pallets.

Miniature Ultraviolet Lamp

Said to be the first bactericidal lamp available in other than tubular shape, the midget Sterilamp is the size of an automobile headlight bulb. The lamp was specifically designed by Westinghouse Electric Corp., Bloomfield, N. J., for use in home refrigerators. Rated at



Topsy... meet Turvy!

Great little comedy team, that Topsy-Turvy combination... but not so funny when their stage is your desk, and you're trying—hopelessly—to do an efficient job with woefully inadequate equipment! The right kind of desk, though, is a keenly engineered tool... designed to speed and simplify the work of every one in an office. And the man who knows all the inside stuff on modern desk management is your friend—

**ART METAL'S
"MR. EXPEDITER, O.D."**

Yes, he's the friend of any harried executive — he's a "Doctor of

Offices" who knows how to save time and money, step up work schedules and reduce personnel fatigue. Ask his advice on your problems. Ask for the low-down on smooth, modern methods—and send for free folder showing a brand new idea in office furniture — Art Metal's Conference Desk! No charge for advice and service. Simply call your local Art Metal dealer or write Art Metal Construction Company, Jamestown, New York.

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ART METAL STEEL OFFICE EQUIPMENT **POSTINDEX VISIBLE INDEX RECORDS**
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Balfour Building,
San Francisco, Cal.

There's more to it than meets the Eye

If you have visited the Balfour Building in San Francisco since Otis modernized the elevators you have seen the modern cabs and attractive entrances. Less obvious to visitors, but more important to tenants and management, is the improved elevator service.

Prior to modernization, five elevators handled the mid-morning and mid-afternoon periods but were over-taxed during the rush hour peaks. Since four of the elevators were modernized and equipped with Otis Peak Period Control, three of them have handled the intermediate periods as easily as the original five, and with the fourth modernized elevator in operation during peak periods, the management is providing better service than was previously possible. The fifth elevator is now reserved exclusively for freight service.

There's more to Otis Modernization than meets the eye — improved traffic handling capacity, increased tenant satisfaction, and material reduction in operating expense.

If you have a vertical transportation problem call your Otis office today. It will cost you nothing — it may save you much.



12 volts and three and one-half watts, the lamp replaces the 8-in.-long tubular type.

It operates at an estimated cost of 5¢ a month. The transformer required consumes three and one-half watts. The tungsten filament glows only for three seconds each time the lamp burns and serves as a starter for the arc which, when struck in a mercury atmosphere, produces germ-killing ultraviolet radiation.

Recording Dilatometer

Continuous recording of thermal expansion and contraction of a wide range of materials including metals, glass, ceramics, and plastics is possible on a new machine announced by the Electronics Division, Sylvania Electric Products Inc., 500 Fifth Ave., New York City. The equipment provides continu-



ous automatic graphic recordings of twelve-hour expansion and contraction cycles of samples.

The instrument is inclosed in a steel cabinet. Recording meters and other instruments are flush-mounted for easy visibility. Functions are coordinated to hold specimen temperature within 1 deg. C; provide uniform heating and cooling with the specimen in an inert atmosphere; automatic shut-off; and an over-all accuracy of 0.2%. It is designed for 110-120 v., 50-60 cycle supply, and is rated at 900-1,000 w.

Spare Tire Inflator

The Ever Ready Inflator, manufactured by Winkenweder & Ladd, Inc., Chicago 5, serves a dual purpose. It permits spare tire checking and inflation from a valve stem that extends through the side of the trunk. This stem is connected by a 48-in. flexible line to the spare tire. Also, the device can be used as an air equalizer for inflating tires that have slow leaks, by detaching it from its mounting to the car, connect-

ONLY TAPER-LOCK

IN TAPER BUSHED SHEAVES,
ONLY TAPERLOCK

IS MADE IN DUAL DUTY SIZES

3.0" to 18.0" Pitch Diameter
1 to 6 Grooves inclusive

PLUS C AND D STOCK SIZES

9.0" to 44.0" Pitch Diameter
3 to 10 Grooves inclusive

A TOTAL OF 451 SIZES

THE SYMBOL
THAT CAME TO LIFE

The man who walks into your factory wearing this symbol is the living embodiment of a service which gives you the correct answer to your problems in efficient mechanical transmission of power. He is the Dodge Transmissioneer.



Patent applied for

The greatest device ever conceived for holding wheels to shafts is available to you in V-Belt sheaves in a vast range of sizes. For full details call your Dodge Transmissioneer, your local Dodge distributor. Look for his name under "Power Transmission Equipment" in your classified telephone directory. Ask for a demonstration of the Taperlock Sheave. See how EASY it is to mount and demount. Slip it on, line it up and tighten while sighting. No flange, no collar, no protruding parts. Yet it holds to the shaft with the firmness of a shrunk-on fit. It's new. It's different. It's another great development of Dodge Transmissioneering.

DODGE MANUFACTURING CORPORATION, MISHAWAKA, IND.

DODGE

MISHAWAKA



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NAME PLATE
ETCHING COMPANY OF AMERICA, 1520 MONTANA STREET, CHICAGO 14, ILLINOIS



If industry is your "baby" Connecticut has the successful "formula" to make it GROW!

Build your business—and your factory—in the State of **SUCCESS** . . . Connecticut! Whether it is an infant industry ready to take its first toddling steps or whether it has already grown up to sizeable stature, it will thrive mightily on Connecticut's distinctive formula for industrial success.

Here it is! Bountiful supply of skilled craftsmen. Remarkable record of management-labor harmony. Favorable tax rates—no State income tax for individuals. Close to America's biggest markets and sources of semi-finished materials. Vast, modern transportation network.

For full information regarding desirable locations, transportation, labor, taxes, warehouse locations, write to Connecticut Development Commission, Dept. BW1, State Office Building, Hartford 15, Connecticut.

Put your business in a "State of Success"
CONNECTICUT

THINGS TO COME

Superior wool worsted yarns will be produced on cotton-type machinery in a new textile plant under construction. The plant will be completely air-conditioned.

• Latest plastic gadget is a paper-cored, polyethylene-coated clothes line, which withstands weathering, it is claimed, far better than conventional materials.

• A simple device, available in early fall, slides over the sole plate and converts a conventional household iron to a steam iron.

ing the spare to the valve of the "flat," thus normally providing about 15-lb. pressure.

Hacksaw Tensioner

The "Tensiometer," a small cylinder inclosing a calibrated spiral spring, attaches to the blade holder on power hacksaws, is said to act as a shock absorber, to compensate automatically for changes of feed pressure and to correct for thermal expansion and contraction. Developed by the Millers Falls Co., Greenfield, Mass., the device can be adjusted to tensions between zero and 4,000 lb.

Bottle Opener

A squeeze of the handles removes bottle caps when the "Cap-Off," a gadget produced by the Eagle Lock Co., 110 N. Franklin St., Chicago 6, is used. Equalized leverage is provided by three claw-like fingers operating under a polished aluminum bell. The bell serves to deflect any overflow.



Everything in Piping Equipment

... for a Paint Plant, for example

Modern paint and varnish making methods are marked by wide utilization of progressive gravity flow. Purely for efficiency's sake, the industry's piping equipment is vast and varied.

Thus, to insure getting the maximum benefits of standardization, and to simplify piping procedures—from design to erection to maintenance—paint plants see eye to eye with other big piping users. They turn to the Crane line for everything in piping equipment, and they gain thereby this exclusive 3-way advantage—

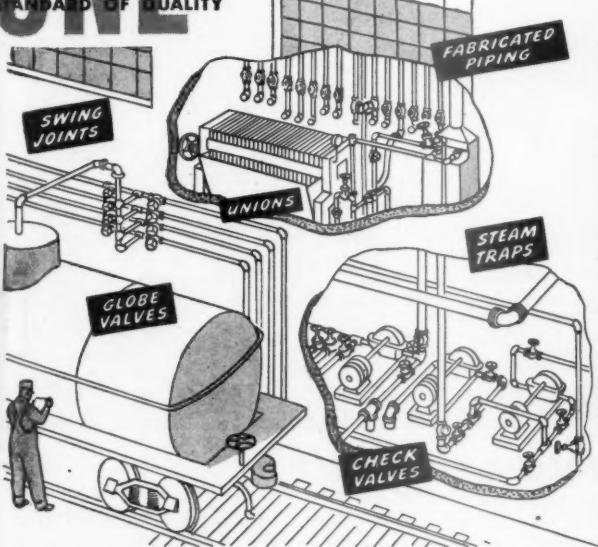
WORLD'S GREATEST SELECTION—from one source of supply—in brass, iron, and steel valves and fittings, in pipe, piping specialties, accessories, and fabricated piping for all applications. Everything for the job—specified from one line—secured on one order to Crane.

SINGLE RESPONSIBILITY for all piping materials helps get the best installation and avoid unnecessary delays on the job.

UNIFORM QUALITY in every item—the basis of Crane leadership in industrial piping—assures uniform dependability and efficiency in piping systems from end to end.

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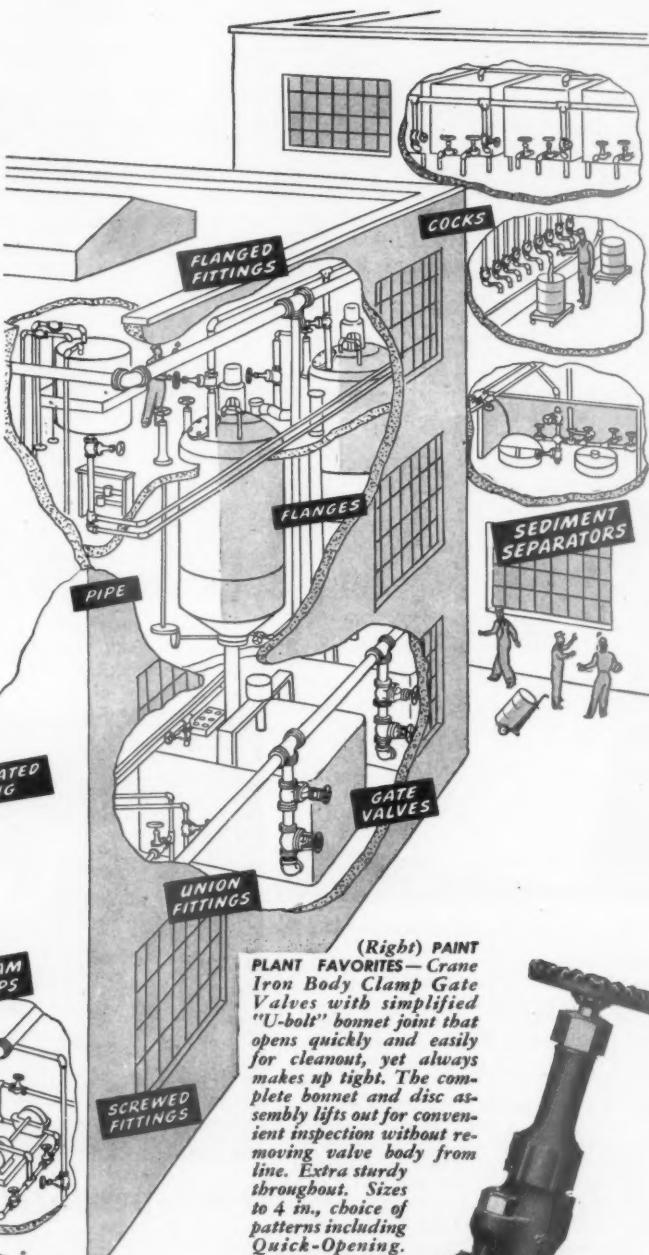


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(Right) PAINT PLANT FAVORITES—Crane Iron Body Clamp Gate Valves with simplified "U-bolt" bonnet joint that opens quickly and easily for cleanout, yet always makes up tight. The complete bonnet and disc assembly lifts out for convenient inspection without removing valve body from line. Extra sturdy throughout. Sizes to 4 in., choice of patterns including Quick-Opening. See Crane Catalog, pp. 98-99.



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Wage Warning

OES rules out second-round
pay increases as the basis for
price relief under reconversion
policy of President Truman.

Employers who negotiate contracts for a second wage increase under President Truman's reconversion wage policy must meet the additional cost without any increase in price ceilings, under a new ruling by the Office of Economic Stabilization. In turning down a new $3\frac{1}{2}$ ¢ hourly pay boost for 45,000 lumber workers, OES last week emphasized that the government will not support a "second round" of increases at this time.

• **Steelman's Policy**—The policy statement written by John R. Steelman, director of OES, recognized as still binding the original series of wage increases negotiated in major industries during late 1945 and early 1946. The fact that some of the increases were less than the $18\frac{1}{2}$ ¢ hourly raise accepted as a pattern after the steel strike settlement does not, according to Steelman, by

itself justify new increases in wages.

Lumber workers in the Pacific Northwest received a 15¢-an-hour across-the-board pay boost last March, after they and the oil workers initiated what proved to be the biggest strike wave in U. S. history. When increases in an $18\frac{1}{2}$ ¢ pattern began to sweep through industry, A.F.L. and C.I.O. lumber workers' unions and employers negotiated an additional 5¢ hourly raise. This figure subsequently was whittled down in National Wage Stabilization Board proceedings to $3\frac{1}{2}$ ¢ an hour.

• **Board Overruled**—NWSB ultimately approved the $3\frac{1}{2}$ ¢ figure by a 4-2 vote, with public members dissenting, and cited its action as based on "special circumstances," which, it appeared, were solely the differing wage patterns for lumber and other industries.

Steelman, who holds a power of veto over NWSB, ruled that the board erred, and that "to disregard differences in formally established wage patterns among industries would be inconsistent with the whole spirit of the President's policy of Feb. 14, 1946." He also advised NWSB that there appeared to be no "special circumstances" which would justify raising wages further, and that the original 15¢ increase was "a full



LABOR STEPS INTO THE PITCHER'S BOX

A six-man committee of major league baseball players last week worked out details of player-proposed contract changes with representatives of owners within the American and National League (above). For at least one club, however, the action might have been too late to achieve the objective of staying off unions for baseball players. After failing to get National Labor Relations Board aid (BW—Jun. 15 '46, p80), the American Baseball Guild last week won a demand for a collective bargaining election on the Pittsburgh Pirates squad in a partial victory before the Pennsylvania State Labor Relations Board. The board decided the poll should be taken, but reserved the right to decide later whether organized baseball teams come under its labor laws.

reflection of reconversion influences" in the industry.

Steelman suggested that approval could have been given only if the 18½¢ and 15¢ pay increases had occurred in related industries, and thus had created "gross inequities."

• **Appeal Scheduled**—Although most of the employers were expected to give employees the wage increase despite Steelman's rejection of their application for price relief, the industry immediately announced plans for an appeal against the OES director's "ruling . . . designed to set up regional patterns, which we believe improper." Spokesmen contended that even if 18½¢ increases had lacked official status before, President Truman's "action in the rail strike established a national pattern of 18½¢ as the accepted increase."

Broad wording of the Steelman statement left no doubt that the policy was a general one, and that the government intends to take a firm stand against any new round of wage-price increases. It therefore raised immediate question of the possibility that recent 8¢ hourly wage increases in the textile industry (BW—Aug. 10 '46, p86) could be considered a basis of price relief.

Meat packing wage negotiations currently under way in Chicago would not, on the other hand, be affected as long as meat price ceilings are off.

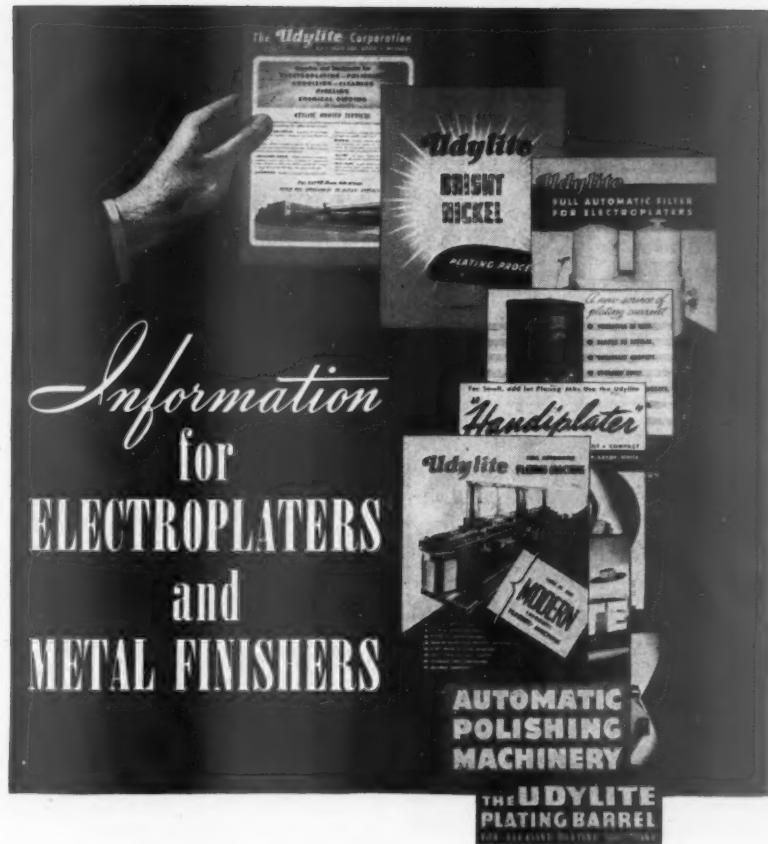
• **Union Studies Policy**—Meanwhile, C.I.O.'s top leadership convened in Washington this week to consider continuing its hold-the-line policy on second-round wage increases and centering its full power against any upward spiral of prices and the cost of living. Rank-and-file demands for immediate higher wages so far have been tabled to await the outcome of the Washington conference.

The demands are still very much alive in local union halls. Despite the Steelman position which further ties NWSB's hands, second-round wage demands are going to be kept in the preliminary stage if for no other reason than because the threat of a new broad surge of wage demands can be a potent weapon for holding prices in check.

VETERANS BEING PLACED

Although veterans' job rights under the Selective Service Act have involved labor and management in controversy and court action for two years, the Dept. of Justice has concluded that 999 of every 1,000 veterans with reemployment rights "have had no difficulty concerning restoration to their old jobs."

Attorney General Tom Clark announced that of an estimated 4,000,000 servicemen with job rights, only 4,531 applied to his department between July 1, 1944, and July 1, 1946, for assist-



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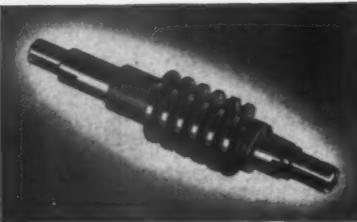


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ance in getting their old jobs back. The department assumes that all the rest either did not seek their old jobs or else have been welcomed back into them without any difficulties.

Of the 4,531 cases brought to the Dept. of Justice, 1,323 "were settled by amicable adjustment" after conferences between U. S. attorneys and the employers concerned; 218 were taken into

THE LABOR ANGLE

Dixie

Although both C.I.O. and A.F.L. have issued enthusiastic progress reports on "Operation Dixie," it still is much too early for an appraisal of the success of their unionization efforts in the South. With a few exceptions—such as the Oak Ridge (Tenn.) atomic energy showdown due this month (BW—Aug. 10 '46, p90)—another 60 to 90 days must pass before campaigns launched as a major phase of the southern drive reach a conclusive stage.

As of last week, C.I.O. had organized 56 new locals in southern industrial plants, and had been defeated in only seven collective bargaining elections conducted by the National Labor Relations Board. It had filed with various NLRB offices more than 100 petitions for certification or for polls of workers.

On paper, "Operation Dixie" is gathering momentum fast. Actually, however, many of C.I.O.'s current successes in the South are the outcome of organizing work started before the opening of its drive. Others of its claimed victories represent small, "sure-shot" salutes which were rushed through for the prestige value of a quickly mounting number of scattered successes.

C.I.O. officials agree that most of the victories to date have been comparatively unimportant in terms of number of workers organized. Reports from drive headquarters in Atlanta, dated July 30 and Aug. 6, told of 18 new locals certified for plants with a total of only 2,163 workers—of whom one-fourth (or 586) voted against C.I.O. in NLRB polls.

Unless there is a marked speedup—and, of course, C.I.O. leaders express confidence that there will be—the union will end the year far under one-fourth of its goal of 1,000,000 new members.

Tests

C.I.O.'s hopes for large numerical gains center in the textile industry, where drives now well under way could recruit 100,000 members. However, no effort is being made to

rush NLRB elections for major cotton mills. Orders are to guard against possibility of defeat at the hands of workers asked "prematurely" to choose C.I.O.

One critical test will come when 20,000 employees of Cannon Mills in North Carolina are called upon to pick C.I.O., another when an all-out bid to unionize Gastonia, N. C., comes to a head.

The Gastonia drive has had little publicity, but to many top C.I.O. officials it is one of the most significant of the current campaign.

Many residents of the small cotton mill center recall the bloodstained record of a Communist union organizing drive there in 1929, when a strike call led to rioting. Gastonia's police chief was killed and many others were wounded or beaten.

When C.I.O. announced that its organizers were going to open a new drive to unionize Gastonia's mills, there were many misgivings about what might happen.

However, field reports from Gastonia purport to show that organization work has been progressing steadily, with no stirrings of old bitterness and violence. Mill operators are opposing unionization, but their opposition is pretty well within the framework of the Wagner Act.

The same thing is true elsewhere, but C.I.O. drive officials assert that Gastonia best dramatizes the new attitude of most of the South.

Unworried

"Operation Dixie" has not been affected appreciably by racial tension. Most drive directors minimize tension as isolated, point out that it has not been connected in any way with union activities. One emphasized reason: Practically all organizers in the southern drive are from Dixie.

Southern union officials are far less worried than northern unionists over nomination of Gene Talmadge for governor of Georgia. Current thinking is that Talmadge, shrewd politically, will avoid any antilabor stand, may even—because of labor's growing strength at the polls—back the unions on some important issues.

federal courts; and the remaining cases (except for 1,150 still pending) were settled either by cash payments to the veterans or by decisions holding that rights were not violated.

Court cases pending include 115 brought by federal attorneys, who are charged by law with court enforcement of veterans' reemployment rights without cost to the veterans. Another 21 were brought by private counsel engaged by the veterans.

The Justice Dept. report also showed recovery of \$232,115 for veterans from employers who had denied them immediate reemployment.

Without Seizures

Decision of White House that strikes in farm equipment plants aren't an emergency has formalized peacetime policy.

Possibility that Allis-Chalmers Mfg. Co. and J. I. Case Co. plant facilities would be seized by the federal government as the result of disputes with the United Auto Workers (C.I.O.) has been cited by management for several months as a deterrent to collective bargaining. This week that possibility was removed.

In an unprecedented action, President Truman's press secretary announced that "after much deliberation" the President had decided definitely that seizure of the Case plants, strike-bound since Dec. 26, 1945 (BW-Jan. 5'46, p100), would not be in the public interest. To Washington insiders the announcement was no surprise (BW-Jul. 20'46, p7), but merely formalized White House policies on seizures.

• **Executive Yardstick**—Guiding principle, as recognized by the President, is that seizure is justified only in a national emergency, when public welfare is vitally concerned. The President decided that closure of the Case plants does not constitute an emergency.

Subsequently there were official intimations that the President's decision would apply also to Allis-Chalmers.

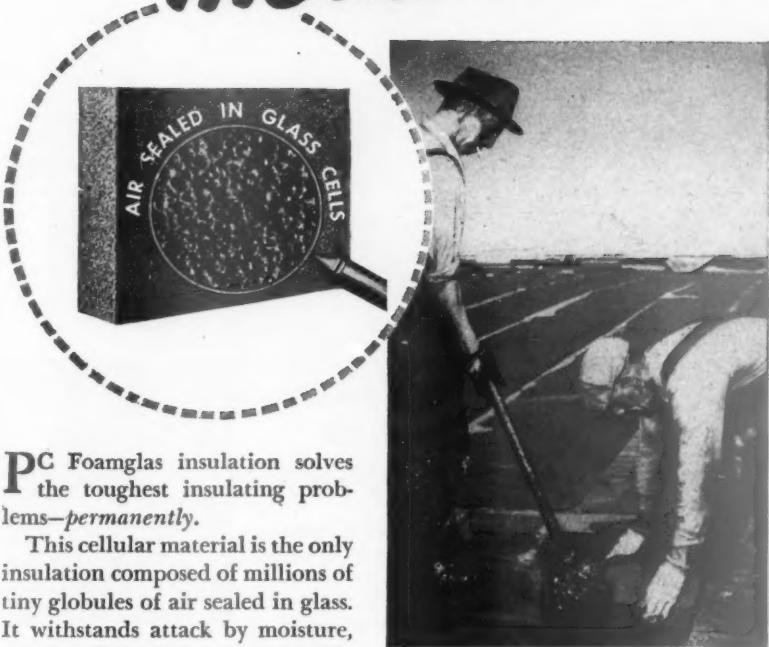
The presidential announcement, which rejected a request by the C.I.O. executive board for seizure of idle Case and Allis-Chalmers plants, set the stage for a new test of whether the companies and their unions can settle their dispute by collective bargaining now that the question of possible government intervention is out of the way.

• **What the Parties Say**—The companies had complained (BW-Jun. 15'46, p87) that U.A.W. was stalling, presumably hoping that seizure would make possible bargaining with the government.

C.I.O.'s resolution to the President

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accused Case of refusing "even to meet with representatives of their employees," and said Allis-Chalmers had made only "a lame pretense of bargaining, using negotiations as a stalling maneuver to weaken and smash the labor unions." C.I.O. said seizure was necessary "in the interest of producing needed farm equipment" for the high production needed to relieve food shortages.

• Secretary's Idea—Seizure first was proposed by Secretary of Labor Lewis B. Schwellenbach last June 4 (BW—Jun. 8 '46, p102). Schwellenbach said seizure seemed the only solution for the strikes.

Heretofore, a seizure recommendation by the Secretary of Labor was followed quickly by presidential action. In the farm equipment cases, however, Administration labor advisers are purported to have opposed seizure unless there was direct evidence that the peacetime national economy was jeopardized. Their reasoning was that once the seizure was ordered, precedent would be set for others in peacetime industry—something the Administration wanted to avoid.

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APPLY IN PERSON IN Tiffin

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Those who will be interviewed will be at the Frank B. Clegg Building, 100 South Main Street, Tiffin, Ohio, every day except Saturday and Sunday from 8 a.m. to 4 p.m. to register prospective applicants.

General Motors will give you more details about the work and the kind of work you will be doing.

Those who are eligible to work will be interviewed and given a place to live.

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G.M. Asks Advice

Professors from score of colleges study labor relations in individual plants, compare notes, report on findings.

In a bid for advice and comments on its labor relations and personnel practices—and not unlikely for more professorial goodwill—General Motors Corp. recently was host to a score of college educators in its second annual "open house" at Detroit and outlying plants.

• **To Repeat Next Year**—Reports were gathered on the results of the professors' scrutiny of company operations, with particular emphasis on labor-management relations. Brickbats as well as bouquets may have been included, but G.M. reported it was well satisfied with what it learned. Plans were announced for a similar program in 1947.

After quietly trying the program out in 1945, G.M. this year sent invitations to a selected group of professors of sociology, labor relations, and related subjects, inviting them to be guests of G.M.—at the corporation's expense—in a plant inspection which the company explained was designed to get a variety of opinions on its policies from men qualified in a variety of fields of study.

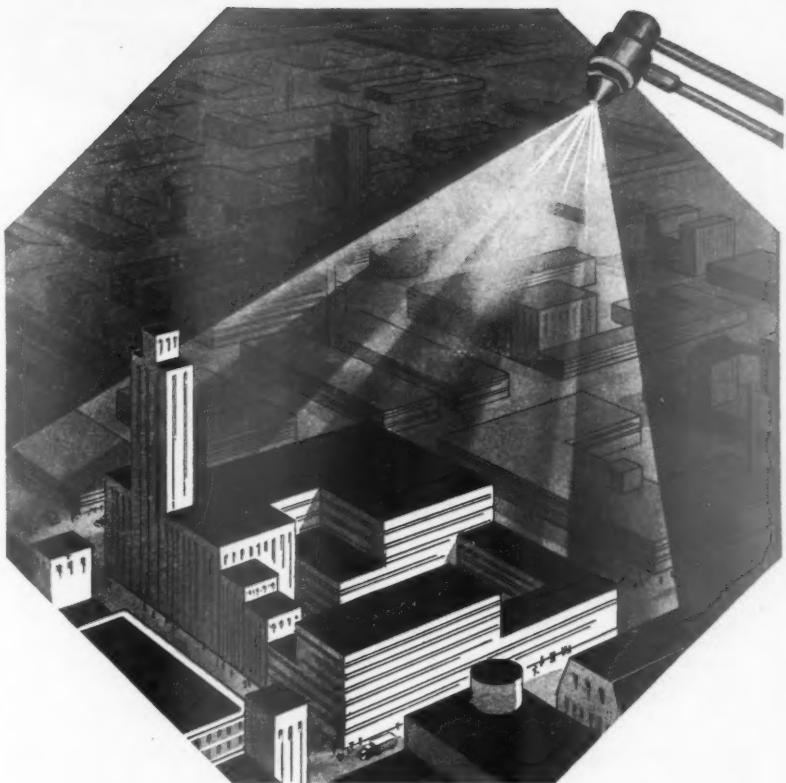
Professors attended from Wayne University, Cornell, Columbia, Iowa, California, Chicago, Illinois, Ohio State, North Carolina, Michigan, Massachusetts Institute of Technology, Dartmouth, Southern Methodist, California Institute of Technology, and Carnegie Institute of Technology.

• **One Week in Plants**—The group gathered in Detroit, where they were briefed for a day by company officials on the corporation's methods of approach to labor problems; their progress, solutions, and setbacks; their relationships with unions; their ideas of company responsibility and aims; and other similar topics.

Each professor then was assigned to a specific plant to do research and study for one week. Plant officials were instructed to answer all questions, and give every aid. At the end of the week the professors gathered again in Detroit, compared notes, and reported their findings and recommendations to the company.

• **Dual Purpose**—Although some of the educators had umpired labor disputes, many had never before been close to the functional level of labor-management relations. Most shared the pro-labor reputation generally ascribed to professors.

For General Motors, it was therefore an opportunity not only to obtain a fresh slant on labor relations but also



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TRANSPORTATION

Principles & Problems

By TRUMAN C. BIGHAM

Professor of Economics, University of Florida

628 pages, 6 x 9, 43 tables, charts, diagrams, \$5.00

In great detail, this thorough study provides background material for the examination of important, present-day problems, and discusses legislation, rate making, service, labor, public aid, securities issuance, general improvement of public policy, and other major phases of U. S. transport as they affect each type of transportation agency. The increased rate relationships receive special attention. Combination among distinct modes of transport is also treated in considerable detail, as is the question of subsidies to transportation.

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- control of securities and reorganization
- combination of carriers
- analysis of labor
- benefits and evils of public aids
- government ownership
- outlook for transportation policy

to show management at work, a phase of the program which conceivably could pay even greater future dividends.

Thus, G.M. made clear the program was solely that of the corporation. It did not admit the professors to grievance negotiation sessions because it would have had to get the union's permission to do so, occasioning, according to G.M., unnecessary complications.

Target for Today

War pilots now flying for charter airlines organize new union to improve civil status, open up nonscheduled field.

Former Army and Navy transport fliers, joined by a few combat airmen, have formed an independent Military Pilots Assn. for the dual purpose of challenging Dave Behncke's Air Line Pilots Assn. (A.F.L.), which has a tight grip on commercial airline jobs, and of battling against federal restrictions on new veteran-owned charter plane services.

M.P.A. recently reported that it had signed up about 5,000 members, principally from charter airlines. Backing up this membership are, according to M.P.A., a reservoir of 400,000 ex-service pilots.

• **Experienced Newcomers**—The new union complains that under the A.F.L. group's contracts with the airlines, experienced military pilots may be employed only on the same basis as fledgling fliers, receiving no credit for military flying time. So far Behncke's association, many of whose members spent the war years flying military transports, has chosen to ignore the M.P.A.

The M.P.A.'s current interest is in loosening up the Civil Aeronautics Board's ruling that nonscheduled air companies may not make more than ten flights in one month between designated points or give freight service (BW—Jun. 15 '46, p18). M.P.A. is backing the companies' protest that CAB's ruling is a threat to an enterprise in which approximately 6,500 former military pilots and 10,000 ex-service ground crewmen are employed. Why, it asks, is the War Dept. selling DC-4s to combat veterans for commercial use if CAB is not going to permit profitable operation?

• **Case Reopened**—Wincing under a storm of protest, CAB has pulled back for reconsideration its proposed economic regulation of nonscheduled companies. Meanwhile, reports filed with CAB indicate that few nonscheduled operators—on whom M.P.A. must rely for its strength—are showing a profit, but few are quitting.

Health Program

Auto union's institute is able to cite some notable gains in its campaign to safeguard the workers' physical well-being.

After 18 months of activity, the United Auto Workers (C.I.O.) Health Institute reports real progress toward its goal of health for all the union's members. During the first half of 1946, it has examined more than 3,400 persons, has sponsored health and safety education classes attended by 1,579, and has given 878 interviews to emotionally upset workers.

In addition, the institute takes credit for introduction of numerous safety devices into plants, and for many changes in factory procedures designed to combat occupational diseases.

• **Positive Approach**—It approaches its problems from a positive viewpoint, emphasizing good living habits, healthful working conditions, and prevention as well as detection of illness. The functions of the institute are divided into three spheres—medical diagnosis, health



WOMEN WANTED

Women in industry declined by 2,650,000 between V-J Day and May, 1946; when May ended there were only 20,000 women seeking jobs. A feminine labor force had disappeared. Employers, who found women efficient for assembly jobs, bumped into that fact when they sought workers for reconverted production lines. One, Stromberg-Carlson, found an answer: employ college girls (above) on vacation. They learn quickly, give the company more time to build up and train a permanent FM radio assembly line of women workers.

*You can't see the difference
but the engine feels it!*

A spark plug designer would see a difference—Insulators can extend farther into combustion chambers because aluminum oxide transmits heat faster, preventing overheating of the porcelain. Longer insulators mean less likelihood of fouling and consequent short circuiting of the spark gap.

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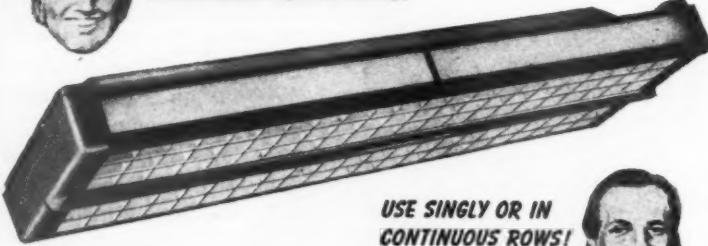
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ELECTRIC LIGHT BULBS; RADIO TUBES; ELECTRONIC DEVICES

and safety education, personal service.

In 1945, the institute took over the sumptuous Detroit River estate formerly owned by Edsel Ford.

Running expenses for its program come from the union locals, which pay a tax of $1\frac{1}{2}$ ¢ per member per month. For locals outside Detroit, the tax is reduced in proportion to distance. Such locals are urged, but not required, to put the difference into a transportation fund for members.

- **Medical Examination**—Any worker who feels that he is not well can arrange through his local union for an appointment with the institute. He then pays a \$2 registration fee, good for one year. The results of a standard examination are completely recorded, and a diagnosis is made. The records are made available to his family physician. In no case does the institute give treatments.

To make these examinations, the institute hires 22 full and part-time physicians, a registered technician, and a technician's aide and assistant. Equipment includes two X-ray machines, two cardiograph machines, six standard examination rooms, and a completely equipped laboratory.

- **Personal Service**—If the doctors decide that the patient's ailments stem from an emotional upset rather than a physical disability, he is referred to the personal service. Two full-time social psychiatric workers give interviews. Such cases usually arise from marital troubles or work unhappiness. Should the interviewer decide that the trouble lies in the subconscious, the patient is referred to one of three psychiatrists who work in conjunction with the institute.

The health and safety education division conducts classes and strives for safer working conditions. Physical examinations and reports from the workers themselves are used to determine whether working conditions are satisfactory.

- **Cases in Point**—Two characteristic incidents demonstrate the value of this approach.

A worker who felt ill went to the institute for an examination, and it was discovered that his lungs had been clogged. It was found that 13 of 16 sand blasting machines in his plant had become perforated, which caused dust to be blown into the shop, where it was breathed by the machine operators. Once informed of the situation, the management corrected the matter.

Two men complained of dizziness and affected sides. Investigation proved that a diluting medium used by the plant had a high toxicity. Management changed the chemical. The institute has not yet found a case where management would not cooperate, once a defect had been pointed out.

- **Education**—Convinced that many cases prove that safety in the plants must

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depend on the workers themselves, the institute seeks to educate them in their responsibilities. Beginning, intermediate, and advanced classes meet twice a week in two-hour sessions. An eventual aim is to have graduates of the advanced class give health and safety instruction in the union local halls.

The U.A.W. is not alone in working out its program. Instructors have been furnished by Wayne University, the University of Michigan, the Wayne County Board of Health, and the U.S. Public Health Service. Detroit's Community Chest allotted \$20,000 to it.

Tie-Ups Threaten

**Government fears lakes
strike will delay production
again. Man-day loss in 1946
sets an all-time record.**

Although basic industries were relatively free from work stoppages this week after a six-month strike toll which exceeded all previous records, labor troubles in canneries, communications, and lakes shipping had raised new concern over possible further production delays. • Over 2,000 Strikes—The U. S. Dept. of Labor recently announced that strikes or lockouts in the first six months of 1946 totaled 2,145, involving 2,945,000 workers. Total man-days of idleness were estimated at 85,500,000, as compared with 28,424,857 for the comparable period of 1937, previous six-month record. Total man-days lost in 1945 approximated 35,000,000, and involved about 3,250,000 workers in 4,600 stoppages.

Most of the 1946 strikes or lockouts came in the early part of the year, and a period of comparative calm followed. • Government Concerned—Last week, however, new storm clouds began gathering. Despite strong government efforts to avert a National Maritime Union (C.I.O.) tie-up of Great Lakes shipping, the union pressed plans for its strike which would involve not only eleven steamship companies having N.M.U. contracts but also 23 other major freight lines. Government concern was great. Great Lakes bulk freight shipping facilities—relied on for iron ore, coal, grain, and limestone movements—have been heavily taxed to keep cargoes from piling up. A stoppage now could mean that raw materials badly needed for industrial use would be still unshipped when winter ice forces suspension of shipping on the lakes about Dec. 1.

N.M.U., which had assurances of support from all C.I.O. unions, asked shippers to extend to lakes seamen essentially the same benefits won in negotia-

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tions with deep water shipping lines (BW-Jun.22'46,p83). Shippers said that the key demand, a shorter work-week, was not possible due to special conditions on the Great Lakes.

Although the deadlock continued at midweek, government intervention in negotiations had won some concessions from union and shippers, had led Secretary of Labor Lewis Schwellenbach to ask unsuccessfully for delay in the union order to "hit the bricks" Thursday.

• **Food Tie-Up Averted**—Government efforts earlier in the week had ended the threat of a strike of C.I.O. food workers at the Campbell Soup Co. plant in Camden, N. J. Loss of a \$4,900,000 tomato crop in Pennsylvania and New Jersey had threatened if the 8,000 workers quit jobs in a demand for a closed or union shop contract. After one 24-hour delay, U. S. Conciliation Service representatives averted the strike by winning agreement on a compromise union security plan which restricts use of migratory labor.

Less successful at midweek were government efforts to end a tie-up of international press communications caused by an American Communications Assn. (C.I.O.) embargo. A.C.A. ordered its members to refuse to handle any press copy, to support a strike of 300 employees of Press Wireless, Inc., to protest the layoff of 46 employees and proposed wage reductions for others.

FOREMEN WIN TEST CASE

The employer position that foremen are not "employees" as that term is used in the National Labor Relations Act will be presented to the U. S. Supreme Court in an appeal from a circuit court ruling.

That is the chief importance of a decision handed down this week in Cincinnati by the Sixth U. S. Circuit Court of Appeals in a celebrated test case. The Packard Motor Co. brought the action against the National Labor Relations Board, which had ordered the company to recognize and bargain collectively with the independent Foreman's Assn. of America. Packard's contention, that foremen are not covered by the Wagner Act because they are part of management, was rejected in the majority opinion.

Packard became the guinea pig for a test of the foreman union issue last December, after F.A.A. had won an election among the company's supervisors. When Packard refused NLRB's order to sit down and bargain, the case went into court.

Meanwhile F.A.A. has been pushing an organizing campaign. Recent gains claimed are two election victories, one at Textileather Co. at Toledo, the other in the Fleetwing Division of Kaiser Cargo at Bristol, Pa.

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Why Should OLD MAN RIVER Get so Polluted!

Rivers that once laughed gayly through our cities have become carriers of disease. Sewage robs the water of oxygen, killing the fish. Plant life along the banks is poisoned and erosion turns natural playgrounds into mud flats.

Yet a sewage plant can eliminate this and be so imaginatively engineered as to pay a large part of its maintenance. For instance, air forced through a tank of waste by Roots-Connersville blowers changes the chemical nature of the impurities eventually causing them to settle. Pacific centrifugal pumps push this sludge into a digester tank through pipes securely but flexibly joined with Dresser couplings. Here, fermentation causes it to yield combustible gases. These gases, drawn off into Stacey Bros. storage holders, can be used to fire Bryant boilers. The gas may also be used to fuel Clark engines which direct-drive the R-C blowers or which run generators that in turn produce electricity for the whole plant. Engineered to lift itself by its boot straps, a large plant can pay about one third of its operating expenses from its own processes.

There is no price high enough to measure the gain in health, recreation and beauty that follows the transforming of waste waters into sparkling streams at little cost through the teamed efforts of these members of Dresser Industries, Inc.

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SECURITY Engineering Co., Inc., Whittier, Calif.

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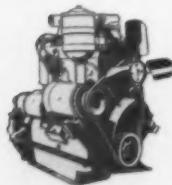
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THE INTERNATIONAL OUTLOOK

BUSINESS WEEK
AUGUST 17, 1946



The scramble for oil—by governments and by business—seeped into the headlines this week.

In Iran, London bared its teeth to the Kremlin by rushing troops into the territory adjoining the Anglo-Iranian oil fields, and warning the world that the British would take any steps necessary to protect their interests in the Persian Gulf area (BW—Aug. 10'46, p99).

Russians are blamed for inspiring unrest among native workers in the vast Iran oil field—center of the world's largest known oil reserves.

If the British could be pushed out of the area, their lifeline to the Far East would be seriously weakened.

If the Soviet Union could win control of the exploiting and marketing of Iran oil, Moscow would gain a vast potential reservoir of foreign exchange and a key strategic base in the Indian Ocean.

In Romania, largest oil-producing area in Europe and now under complete Soviet domination, Swiss capital is claimed to be involved in a big new deal to distribute Romanian oil in Switzerland (page 97).

Worry to U. S., British, Dutch, and French investors—who controlled more than 80% of Romania's prewar production—is how far their activities will be frozen and the new Russian-Romanian-Swiss interests exploited.

The development is another move in the battle between the Russian and western blocs of nations for expanded areas of economic and political domination.

Oil is rapidly becoming the most important single stake in the East-West battle for Hungary and Austria (BW—Aug. 3'46, p95).

Oil fields in these countries, developed by U. S. interests in the last decade before the war, were vastly expanded by the Germans.

The U.S.S.R. is now holding output at peak levels, using the oil for its occupation forces in Central Europe.

If the Austrian and Hungarian oil fields, as well as the Romanian, fall permanently into Russian hands, British and U. S. oil interests will lose their bargaining advantages in the big oil markets of Central Europe.

Closer home, oil interests are faring better.

In a move which acknowledges at least the partial failure of its drastic expropriation program, Mexico is now inviting foreign capital to invest in a big new petroleum development program.

Nominally, bids will be open only to independents, mainly Mexicans, but powerful world oil interests will participate through mixed commissions with private Mexicans or the Mexican government.

Concessions will run for 30 to 50 years and are likely to include an increasing number of privileges as successive Mexican governments need added royalty returns.

You can soon expect the announcement of important new oil finds in central and western Mexico and along the Guatemalan border.

With every encouragement from U. S. military authorities eager to develop a solid hemisphere defense program, the successful bidders can be

THE INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
AUGUST 17, 1946

expected to become big buyers of drilling and refining equipment during the next five years as well as heavy purchasers of pipeline materials.

U. S. firms will win this business only if they outbid keen competitors.

A technical mission has just been formed in Britain to represent 250 manufacturers of oil industry equipment, and will arrive in the Caribbean area early in September to bid for the burgeoning postwar supply business.

Coming with the blessing of Royal Dutch Shell interests and the solid backing of the United Steel companies of Sheffield, the mission will head first for Trinidad, Venezuela, and Colombia where large orders are pending.

British business made another shrewd deal when its fur auctioneers won a Russian contract making London, rather than Leningrad, the world market for Russian furs.

The U.S.S.R. is the world's largest supplier, and canny Russians have catered so successfully to foreign tastes during the last 15 years that their skins command a premium in most markets.

Nationalization plans of London's Labor government suffered a setback this week when major British steel producers forced the government to agree to a slowdown in the move toward public ownership.

To obtain full industry cooperation in the country's vast rehabilitation program, London officials have reluctantly agreed that the recently appointed Control Board for the industry will not now act as an adviser on nationalization schemes, but merely as a supervisory body to promote modernization plans.

Also, British steel prices will be allowed to rise—probably an average of about 3%—in the next few days.

U. S. power equipment producers have been invited to bid in competition with the British and others on the new Aswan power plant in Egypt.

Two members of the Egyptian Hydro-Electric Power Commission are in this country now to discuss details.

Significantly, the commission is prepared to accept U. S. standards and practices, and specifications have been drawn up accordingly.

Watching the steady economic recovery in the Scandinavian countries, U. S. automobile interests paid more than ordinary attention when Norway—badly battered by the Nazis—announced that it is in the market for \$600,000 of passenger cars, \$800,000 of trucks, and \$500,000 of bus chassis.

Though not large, the order forecasts a steady customer in the future with a demand for parts and replacements.

Business Week's correspondent in Brazil confirms rumors that Sears, Roebuck & Co. has large-scale plans for outlets throughout metropolitan centers in that country.

Following the acquisition of a large piece of ground in Rio, where a store is expected to be opened before Christmas of next year, officials have also selected a site in Sao Paulo, and are investigating conditions in Belo Horizonte.

BUSINESS ABROAD

Romanian Oil: Soviet Unknown

Foreign petroleum companies fear preferred position of Russians in Balkans will give Swiss distributor undue advantage. Economic collaboration agreements complicate the picture.

The reported formation last week of a Romanian-Swiss company to distribute petroleum products in Switzerland again has raised the specter of Soviet economic penetration of the Balkans and beyond into central Europe. For the Romanian partner in the newly formed joint-stock company is believed to be a Russian-backed or Russian-controlled firm.

First accounts of the new development heralded it as a move to usurp the position of British, American, and Dutch oil interests competing in the Swiss market with oil produced by their Romanian affiliates.

• **Future in Doubt**—Right now these foreign firms still own Romanian producing and refining facilities, but production and distribution are controlled by the occupying power, the Soviet Union. It remains to be seen whether the new firm will move into the Swiss market before the foreign operators in Romania have jurisdiction over their oil output and are free to sell abroad. Before the war, about 25% of Switzerland's oil needs were met from Romanian sources.

The long-range effects of the new joint-stock distributing company are difficult to appraise today. However, conditions in Romania have a direct bearing on the situation.

Under the terms of the Armistice, signed by the United States, Britain, and the U.S.S.R., the Soviets are guaranteed fixed reparations payments, of which 50% are to consist of petroleum products. Delinquency on other reparation deliveries has been met by additional oil shipments. Also, commercial trade agreements between Romania and the Soviet Union have involved oil deliveries.

• **Soviet Domination**—Under the Armistice, all oil output and distribution are under the control of the Allied Control Commission, which in this area is dominated by the Soviets. As the occupying authority, the Red Army requisitions oil, among other things, as a further drain on Romanian output.

Chief complaint of the foreign oil operators in Romania is that compensation for oil now being produced is all in local currency at about 20% of the prewar price—and producers are not

permitted to sell abroad to acquire negotiable funds.

Finally, Romania has been permitted to enter into barter arrangements with neighboring countries other than the U.S.S.R., trading oil and other products for raw materials and manufactures. For instance, last month France and Romania signed a provisional commercial agreement for the exchange of nearly \$3,500,000 of goods in each direction. Romania, under the arrangement, will export \$1,416,000 of petroleum and products to France.

• **Joint-Stock Companies**—During the last quarter of 1945 fully 68% of Romanian oil went to the U.S.S.R. or to the Red Army in Romania; but early this year the Russian share (including reparations deliveries, exports to the U.S.S.R., and Red Army requisitions) amounted to 48%.

Further complicating the picture, the Soviet Union tagged an economic collaboration agreement on its first commercial trade treaty signed last year.

This called for Soviet assistance with Romanian recovery, and one of the early forms this collaboration took was the creation of joint-stock companies for the exploitation of oil, bauxite, river navigation, civil aviation, and forest products. A Soviet-Romanian chemical company has been discussed. The Soviet share, in each of these instances, has been largely former Axis-owned properties—awarded to Russia by the Potsdam accord.

• **Reparations Payment**—During the war, Germany took over many of the European-owned oil properties in Romania by the defeat of the owning countries. First, Czech banks were forced to turn over the shares they owned in Romanian oil firms. Then, as the Wehrmacht moved across Belgium and France, controlling shares of Concordia, Colombia, and Forakay Romanesca fell into German hands. Kontinentale Oel, A. G., with whom these assets were vested, gained control of nearly 13% of the ownership of the Romanian oil industry.

In July, 1945, the Romanian government delivered the assets of eleven firms—valued at 1,760,000,000 lei, or about 12% of the total capital invested in the oil industry—to Moscow as a reparations payment.

Under the plan for the joint-stock oil company, Sovrompetrol, the Soviets delivered their recently awarded stock and some 750 million lei in equipment for exploration and exploitation of oil. Romania contributed the stock of Credital Minier and Redeventa (valued



BOLD FRONT FOR THE "TOURIST" TRADE

Phoenix-like, a smart shop appears amid the rubble of what was once Berlin's "Fifth Avenue"—the Kurfurstendam. Like most others ingenious enough to devise means of refurbishing shops, the merchant is offering astronomically priced souvenirs and baubles and looking to free-spending G.I.'s to buy them.

at 1,100,000,000 lei), state oil preserves and certain oil royalties to make up the 2,500,000,000 lei share in the 50-50 corporation.

• **Old Pattern Shifts**—In consequence, the ownership of Romanian petroleum facilities was shifted slightly from its old pattern, but the Soviet wedge was still a small one. Distribution of ownership of the Romanian oil industry is now as follows:

Romania	27.34%
British	22.51
U.S.S.R.	12.53
U.S.A.	12.30
French	10.65
All others*	14.67

* Chiefly Italy, Belgium, the Netherlands, and Switzerland.

Right now foreign oil companies interested in both Romanian production and in the Swiss market are awaiting further information on the Romanian-Swiss company before passing final judgment on its probable effects on their business.

The great fear, and a real possibility, is that the present preferred position of the Soviets in Romania will give the Swiss distributor a privileged spot in the Swiss market.

• **Official Wedges**—Foreign businessmen, already alarmed by Soviet economic ties in eastern Europe, are ready to back the State Dept.'s strong stand for nondiscriminatory treatment of for-

ign commercial operators in the Danubian countries.

The most disturbing factor in the situation is the official nature of the Soviet economic wedges, since Russian banks, trading agencies, cooperatives, and industrial trusts are necessarily government instruments. Their functions are parallel to, but more extensive than, those of the U. S. Commercial Co., Export-Import Bank, and agencies like Metals Reserve Co. and Petroleum Reserves Corp., and these, for the most part, were war-inspired temporary agencies.

To date, however, there is little new in the latest joint-stock companies setup by the Soviets. They follow the same pattern, and fulfill the same function that characterized the dozen-odd companies formed after the last war (some still existing) in Germany, Sweden, Denmark, Poland, Austria, Iran, and China. It remains to be seen whether the new companies appearing in eastern Europe are political as well as economic weapons, and if so what the consolidation of Moscow's influence in the Balkan countries will portend for American and other foreign business in the area, and for American foreign traders.

DISKS FOR MEXICO

MEXICO, D. F.—Invading a field now dominated by an American firm, Don Neguib Simon—Mexican industrialist who built the world's largest bull ring in Mexico City (BW—Nov. 24 '45, p114)—has just bought complete facilities in the U. S. for manufacturing phonograph records in Mexico.

Until now, the only complete setup for recording, making matrices, and pressings for records has been RCA Victor Mexicana, subsidiary of RCA Victor, Inc.

Don Simon plans to specialize in the recording of Mexican music and manufacture of records for export throughout Latin America. Equipment for the plant is due to arrive shortly accompanied by a skilled engineer who will supervise its installation and operation and training of local personnel.

FACTORIES FOR EXPORT

Believing that the way to take manufactured products to nonindustrialized foreign countries is to provide them with factories geared to their requirements and their economy, Intercontinental Engineering Corp., San Francisco, is offering what it terms "packaged plants" for export.

Each plant is a complete manufacturing unit, usually of about the smallest size that can be economically operated. According to R. J. Scott, president, this means that in many instances plants will be designed to make

Pan Am Offers to Share

With a bow to the government's stand in favor of competition in domestic and international aviation, Pan American Airways has now offered to share its facilities in Latin America with its competitors.

Involved in the deal are 98 airfields, 198 radio stations, and 199 weather stations belonging to Pan American and its related companies in Mexico, Brazil, Colombia, and Venezuela. It is expected that Pan American-Grace Airways (Panagra) will concur in the decision.

American companies due to benefit from being able to rent facilities established by Pan Am include American Airlines, Braniff Airways, Chicago & Southern Air Lines, Colonial Airlines, Eastern Airlines, and National Airlines—all with recent approval from the Civil Aeronautics Board for flying south into Pan American's territory. The facilities will also be available to Latin American companies if any are certified to fly to the United States.

CHILE'S OIL

Is it worth fighting for?



Ever since Chile discovered oil in Tierra del Fuego last December, jittery citizens have suspected Argentina of coveting the area and Communist agitators have alleged a plot to turn over the field to a U. S. oil firm. However, the United Geophysical Corp. of New York, engaged by the Chilean government to explore the territory, has had several negative borings in the area recently with a consequent dampening of both fear and enthusiasm. Experts are reserving judgment for the time being, recognizing the chance that too-optimistic reports may have been deliberately spiked to keep out other interested parties until there has been a chance to do more exploration.

maximum rather than minimum use of labor, as labor is often cheaper than machinery. Capital investment is thereby reduced.

The company already has contracts for an asphalt tile plant in Peru, an asbestos cement plant and a brick plant in Venezuela, is about to close a deal for a glass bottle plant in Mexico. It is also preparing designs for more than a score of basic industry plants, design specifications for which will amount to a "catalog" of necessities.

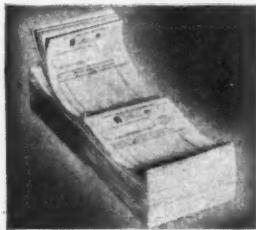
If it is cheaper to erect a plant building from locally available materials, that will be done; if not, the building materials (perhaps in prefabricated form) will be obtained in this country and shipped to site.

The company's services include complete engineering aid, including training of local labor for plant operation.



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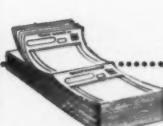
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CANADA

Price-Line Crisis

Dominion's control system runs into rough times as result of wage pressures and strikes that complicate tight supply.

OTTAWA—Canada's price control system wallowed in the worst crisis of its life this week.

Unlike the OPA battle of a few weeks ago at Washington, however, the issues were economic and administrative and not political.

• **Strikes Create Issue**—Parliament, although still in session, had nothing to say about the matter, but members were worried. There was no legislation to be renewed; that was done nearly a year ago. Politicians might have talked about the price crisis had they wanted to, but they kept silent.

The challenge came largely from the effect of strikes on a tight supply situation, and from previously granted and prospective wage increases.

The country's basic steel plants remained tied up, except for something less than normal production at the Steel of Canada Co. plant at Hamilton,

which could not be delivered to customers because of mass picketing.

• **Retreat From Controls**—An anomalous situation in the lumber industry loomed as David D. Rosenberry, timber controller, tendered his resignation because of a difference in policy with Donald Gordon, Prices Board chairman, who hinted at his own resignation if striking steelworkers got more than a 10¢-per-hour wage increase.

In the face of the growing crisis, it became clear that the government would stick to its policy of orderly retreat from controls even if at some stages the retreat became disorderly. It would salvage what it could and apply brakes to prices wherever practical. It would continue to subsidize imports to the limit but steer clear of further domestic subsidies.

Another controller was lined up to take Rosenberry's place in the hot timber office seat. The issue on which he resigned was whether to grant an immediate increase in lumber prices to make up for the 15½¢ wage increase recently won by a loggers' strike in British Columbia, and whether to equalize the eastern and western branches of the industry.

• **Exports Hike Prices**—Rosenberry wanted the increase to head off trouble although the settled policy of the prices board is to wait until industry proves need. British Columbia lumber interests had talked of applying for a price



THERE'S A LOG JAM OF PRICES, TOO

Logging crews are moving a record tonnage of pulpwood to Canadian mills, but the industry is still up in the air over price prospects. When the Canadian dollar was revalued at the U. S. dollar rate, the newsprint price was hiked \$6.80 a ton; when OPA revived, the price rollback to June 30 left sellers in a quandary. Pending a decision on price, Canadian newsprint sold in the U. S. is being billed at \$6.80—with an additional \$6.80 chargeable if approved. Betting favors a higher price because Canadian mills can do plenty of business elsewhere if the United States price is held too low.

increase but had not moved formally, perhaps because they were not in a position to prove need until a longer experience had been had with the higher wage.

The lumber situation has been one of the toughest for control for many months because domestic prices are pegged below recognized cost and the industry gets by on higher export prices. That necessitates limitation of exports. Recently lumber operators took a beating on their export returns when the dollar was hoisted to parity.

• **Living Costs Jump**—Operators made a temporary comeback by raising the price to U. S. customers, but OPA knocked down the price again. Now formal application has been made to OPA for an increase in the ceiling price on Canadian lumber, backed by the suggestion that if it is not forthcoming, exports will be directed to Britain.

To add to the woes of control, the Dominion Bureau of Statistics' cost of living index took a jump of 1.5 points in June. The increase, which had been expected, pushed the index to 125.1 compared with 100.8 in August, 1939, at the outbreak of war. The index had gone up five points in four months.

• **Labor Attacks Gordon**—That, said Donald Gordon, "provides a mild foretaste of the conditions for which we are headed unless all groups make a serious effort to hold the line."

Forced to choose between sending steelworkers back to plants with the 10¢ increase offered them before the strike (BW—Aug. 10'46, p104), or gambling on Gordon's being wrong, spokesmen for labor opened an attack on Gordon, charged the index increase proved he was not holding the price line.

STORES FORM CO-OP

TORONTO—Eight Canadian department stores have formed Allied Merchandisers of Canada, Ltd., at Montreal, a cooperative organization to exchange ideas in the field of retail merchandising.

The volume of business available in the group will enable suppliers and the stores to get together for constructive styling of merchandise and larger distribution. Group meetings of buyers are held to work out volume items. Manufacturers will only have to contact one store of the group to get merchandising data to all members of the organization.

Members of the organization are Chapples, Ltd., Fort William; Dupuis Freres, Ltd., Montreal; Manchester, Robertson, Allison, Ltd., St. John, N. B.; James A. Ogilvy, Ltd., Montreal; Charles Ogilvy, Ltd., Ottawa; G. W. Robinson Co., Ltd., Hamilton; R. H. Williams & Sons, Ltd., Regina, Sask.; and Wood Brothers Co., Ltd., Halifax.

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Business Week—August 17, 1946

ACE MANUFACTURING CORP.	84	LEHMAN BROS.	60
Agency—Gray & Rogers		Agency—J. Walter Thompson Co.	
LOUIS ALLIS CO.	52, 53	THE MALL TOOL CO.	88
Agency—Almon Fowles & Assoc.		Agency—Chas. Elwyn Hayes, Adv.	
ALUMINUM ORE CO.	89	MANNING, MARSH & MOORE, INC.	8
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AMERICAN APPRAISAL CO.	70	MARSH STENCIL MACHINE CO.	102
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Agency—Hazard Advertising Co.		Agency—I. B. McGivern & Co., Inc.	
AMERICAN LEAD PENCIL CO.	73	McGRAW-HILL BOOK CO.	88
AMERICAN PLASTIC PRODUCTS	102	MERRILL LYNCH, PIERCE, FENNER & BEANE	62
Agency—Firestone Advertising Service		Agency—Albert Frank-Guenther Law, Inc.	
AMERICAN TELEPHONE & TELEGRAPH CO.	34	MINNEAPOLIS-HONEYWELL REGULATOR CO.	41
Agency—Newell-Emmett Co.		Agency—Addison Lewis & Associates	
ART METAL CONSTRUCTION CO.	77	MINNEAPOLIS STAR & TRIBUNE	102
Agency—McGann-Erickson, Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
BANK OF AMERICA	64	MONSANTO CHEMICAL CO.	35, 4th Cover
Agency—Chas. R. Stuart, Inc.		Agency—Gardner Advertising Co.	
BAUER & BLACK, DIV. OF THE KENDALL CO.	38	NATIONAL BREWING CO.	70
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BUFFALO FORGE CO.	63	W. H. NICHOLS CO.	68
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THE CARPENTER STEEL CO.	46	NORFOLK & WESTERN RAILWAY CO.	30
Agency—Beaumont, Heller & Sperling, Inc.		Agency—Houck & Co.	
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CONNECTICUT DEVELOPMENT COMM.	80	THE PFAUDLER CO.	31
Agency—Albert Woodley Co.		Agency—Charles L. Bunnill & Co.	
CONTAINER CORP. OF AMERICA	51	PITTSBURGH CORNING CORP.	85
Agency—N. W. Ayer & Son, Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
CRANE CO.	81	PORTLAND CEMENT ASSOCIATION	92
Agency—The Buchen Co.		Agency—Roche, Williams & Cleary, Inc.	
CUTLER-HAMMER, INC.	86	PRUDENTIAL INSURANCE CO. OF AMERICA	36
Agency—Kirkgasser-Drew		Agency—Benton & Bowles, Inc.	
DESIGNERS FOR INDUSTRY, INC.	100	REMINGTON RAND, INC.	4
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DODGE MFG. CORP.	79	SAFETY & MAINTENANCE CO.	48
Agency—Lampert, Fox, Prall & Doik, Inc.		Agency—Gray & Rogers	
DRESSER INDUSTRIES	93	SALEM ENGINEERING CO.	66
Agency—Fuller & Smith & Ross Inc.		Agency—Meek & Thomas, Inc.	
E. I. du PONT de NEMOURS & CO.	24	SAN JOSE CHAMBER OF COMMERCE	44
Agency—Batten, Barton, Durstine & Osborn, Inc.		Agency—Wank & Wank, Adv.	
EASTMAN KODAK CO.	71	SEATTLE-FIRST NATIONAL BANK	56
Agency—J. Walter Thompson Co.		Agency—Pacific Nat'l. Adv. Agency	
EDISON STORAGE BATTERY DIVISION		SIMONDS SAW & STEEL CO.	61
THOMAS A. EDISON, INC.	2	Agency—Sutherland-Abbot	
Agency—O. S. Tyson & Co., Inc.		THE W. W. SLY MFG. CO.	55
ELASTIC STOP NUT CO.	57	Agency—The Bayless-Kerr Co.	
Agency—G. M. Basford Co.		THE SOUNDSCRIBER CORP.	50
ELIJER CO.	58	Agency—Erwin, Wasey Co., Inc.	
Agency—Fuller & Smith & Ross Inc.		STATE OF MISSOURI	103
ERIE RAILROAD CO.	75	Agency—Potts-Turnbull Advertising Co.	
Agency—The Griswold-Eshleman Co.		THE STUDEBAKER CORP.	3rd Cover
FLINTKOTE CO.	87	Agency—Roche, Williams & Cleary, Inc.	
Agency—Marschak & Pratt Co.		B. F. STURTEVANT CO.	14
FOLLANSBEE STEEL CORP.	65	Agency—Richard & Co., Inc.	
Agency—Ketchum, MacLeod & Grove, Inc.		SYLVANIA ELECTRIC PRODUCTS, INC.	90
FOX RIVER PAPER CO.	82	Agency—Newell-Emmett Co.	
Agency—Scott-Telander Adv. Agency		THE TEXAS & PACIFIC RY.	91
GAYLORD CONTAINER CORP.	69	Agency—Rogers & Smith	
Agency—Oakleigh R. French & Assoc.		THOMSON INDUSTRIES, INC.	58
GENERAL ELECTRIC CO.	3	Agency—The Kotula Co.	
Agency—G. M. Basford Co.		THE TRANE CO.	49
THE B. F. GOODRICH CO.	1	Agency—The Cramer-Krasseit Co.	
Agency—The Griswold-Eshleman Co.		TRUNDE ENGINEERING CO.	74
GRAY MANUFACTURING CO.	72	Agency—Fuller & Smith & Ross Inc.	
Agency—Edward Owen & Co.		E. W. TWITCHELL, INC.	47
GRINNELL CO., INC.	76	Agency—Gray & Rogers	
Agency—Horton-Noyes Co.		UARCO, INC.	99
GULF OIL CORP.	11	Agency—The Buchen Co.	
Agency—Young & Rubicam, Inc.		UDYLITE CORP.	83
HOLIDAY	67	Agency—Witte & Burden, Adv.	
Agency—Lewis & Gilman		WARNER & SWASEY CO.	2nd Cover
HOTEL MAYFAIR	100	Agency—The Griswold-Eshleman Co.	
Agency—Gardner Advertising Co.		WESTINGHOUSE ELECTRIC CORP.	33
J. M. HUBER, INC.	32	Agency—Fuller & Smith & Ross Inc.	
Agency—Birmingham, Castlman & Pierce, Inc.		WHITE RODGERS ELECTRIC CO.	59
INDIANA DEPT. OF COMMERCE & PUBLIC RELATIONS	40	Agency—Frank G. Jappa	
Agency—Pettenger-Harding, Inc.		WILLYS-OVERLAND MOTORS, INC.	94
THE INDIANA STEEL PRODUCTS CO.	27	Agency—Ewell & Thurber Assoc.	
Agency—Chas. Daniel Frey Adv. Agency		L. J. WING MFG. CO.	42
WALTER KIDDE & CO.	43	Agency—Willard G. Myers Adv. Agency	
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THE MARKETS

(FINANCE SECTION—PAGE 57)

Security Price Averages

	This Week	Month Ago	Year Ago
Stocks			
Industrial	175.8	171.9	172.7
Railroad	61.5	60.2	62.8
Utility	90.5	90.1	89.6
Bonds			
Industrial	123.3	123.2	123.7
Railroad	117.8	117.8	118.5
Utility	115.3	115.2	114.9

Data: Standard & Poor's Corp.

Market Still Creeps Upward

Despite the occasional emergence into New York Stock Exchange proceedings of potent spells of profit-taking which have tended temporarily to break up the continuity of the uptrend, this week has witnessed a further extension of the creeping advance disclosed by stocks generally since mid-July.

• **Industrials Lead**—Thus far, based on the performance of the various Dow-Jones stock price averages, Wall Street's traditional market barometers, the industrial shares, have been evidencing greater recuperative powers than any other section of the stock list since the advance started.

In fact, by Wednesday of this week that group could boast of having recovered more than half of the loss it suffered during the June-July market sell-off. Most encouraging to the brokerage fraternity has been the prominent part played in this advance by many of the so-called "heavy industry" shares.

Doing almost as well as the industrial shares since mid-July has been the utility group. By the middle of this week it could also point to having recovered close to 50% of all its earlier losses.

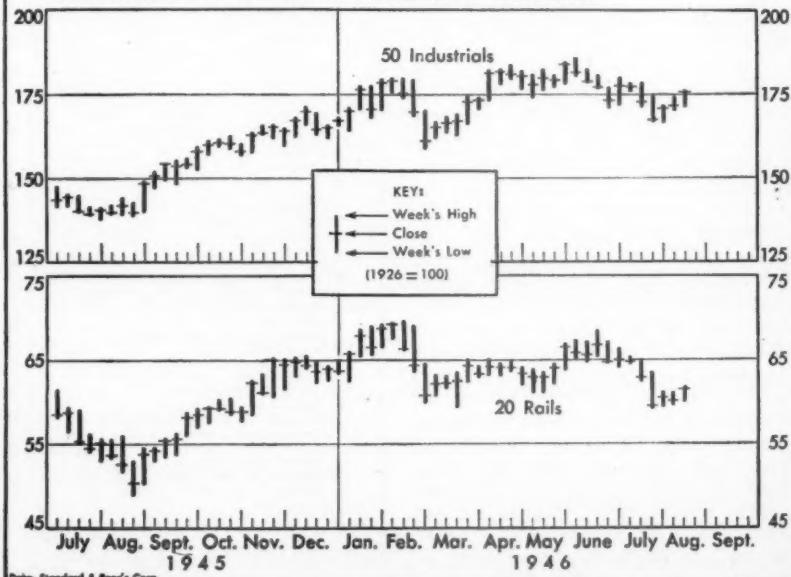
• **Rails Lag Badly**—Where the railroad stocks are concerned, however, it's been quite a different story over recent weeks. That group, reflecting the industry's poor first-half earnings picture (BW—Aug. 10 '46, p66) and investor concern over the future profits trend, has been lagging badly.

Due to the showing lately of the industrial and utility stock groups (particularly the former), optimism over the near-term price outlook has been growing in brokerage quarters. However, even though fears of a nearby serious price recession are fading, Wall Street contains few rampant bulls at the moment.

Still generating much caution are a number of factors. Not yet entirely recovered from its recent serious attack of indigestion, for example, is the new issues market (page 65). It is likewise recognized that as the market once more approaches its bull market highs this will undoubtedly be accepted as a signal for the sale of much stock. And causing some questioning of the basic strength behind the current rally has been the small trading volume seen thus far while the industrial and utility averages have been rising.

• **Union Forebodings**—Probably not helping sentiment this week was the

COMMON STOCKS—A WEEKLY RECORD



holding of a strike vote meeting on Wednesday by Wall Street's growing labor union, the United Financial Employees (BW-Aug. 3 '46, p65). Attendance was so heavy that Big Board trad-

ing activities were badly hampered until the meeting was over. Also, U.F.E.'s heads were given carte blanche to "strike" the Big Board whenever they desired.

The Bull Market—After One Year of Peace

Whatever the future may hold for stocks generally, Wall Street need never apologize for its previctory "peace is bullish" forecast. Until recently life proved quite merry for most post-V-J Day market participants. It is true that recurrent spells of sharp price weakness during June and July did cause some evapora-

tion of earlier-gained postwar paper profits. However, the market has also since disclosed rallying power, and the damage to date has not been too serious, as indicated in this table covering the last twelve months' performance of Standard & Poor's twelve stock price indexes (1935-1939 = 100):

Group Index	Previous Bull Market Highs 1929	End of War 1937	Recent High 1946	1946 Level	% Gain Since V-J Day
Alcoholic beverages	178.3	135.8	223.2	581.6*	149.0*
Motion pictures	773.5	170.5	153.5	350.3*	103.0
Department stores	342.3	159.0	161.7	345.8*	85.8
Paper	274.3	237.4	185.8	328.6*	65.1
Fertilizer	347.0	163.0	168.2	305.4	73.7
Shipbuilding	130.4	132.1	134.3	244.7*	217.2
Copper	244.7	188.7	89.9	147.1	138.2
Textiles and apparel	250.1	153.0	184.7	312.0*	283.5
Utility holding companies	834.4	164.5	92.9	160.0	142.4
Drugs & cosmetics	244.2	114.7	106.1	183.4	161.6
Steel	316.4	184.6	109.5	165.6	163.6
Food store chains	413.1	120.0	147.2	248.6	217.9
Baking and milling	325.7	124.0	120.5	176.3	176.3
Mail-order companies	255.3	144.2	154.9	241.1	222.5
Office & business equipment	297.0	141.1	111.3	165.1	159.4
Shipping	448.6	176.9	314.1	459.7*	446.4
Investment companies	625.9	163.4	138.5	213.5	192.1
Oil	177.4	145.9	119.2	169.8	164.3
Mining & smelting, misc.	161.4	159.0	78.5	113.0	105.8
Dairy products	432.6	132.4	170.3	250.1	227.8
5¢, 10¢, \$1 chain stores	205.4	131.0	105.0	156.9	138.7
Chemical	167.7	128.7	111.8	152.5	145.2
Industrial stock index	197.7	140.7	118.5	163.2	153.1
Roofing	158.0	158.7	127.3	197.7*	164.3
"Capital goods" shares	215.3	153.7	107.5	147.0	138.6
Printing and publishing	621.9	168.4	178.3	285.5	229.6
Leather	310.3	187.0	146.8	221.9	187.6
Weekly composite index	240.9	139.8	117.5	158.6	149.2
"Consumer goods" shares	201.1	131.2	127.7	175.8	162.1
Cement	254.3	171.4	139.4	204.6	176.7
Aircraft manufacturing	385.4	140.7	119.7	183.1	151.5
Meat packing	171.0	144.0	150.7	203.0*	190.0
Tires and rubber goods	353.9	191.4	219.0	307.4	275.0
Metal fabricating	504.5	196.7	122.5	178.2	162.5
Machinery	150.0	160.0	113.9	155.1*	141.5
Household furnishings	194.0	135.0	156.5	222.5*	194.1
Shoes	176.0	117.7	107.0	144.7	132.1
Lead and zinc	164.1	170.3	101.3	139.7	123.9
Air transport	332.1	165.0	413.3	605.3*	499.1
Rail equipment	290.0	176.3	116.3	153.5	139.1
Utility stock index	386.0	136.0	107.4	132.3	128.1
Soft drinks, confectionery	68.1	131.1	126.1	165.2*	149.7
Coal	897.2	150.9	179.4	230.7	212.5
Soaps and vegetable oils	205.3	122.6	120.9	149.1	143.1
Containers	113.0	120.7	92.7	116.2*	109.0
Weekly rail stock index	460.2	171.1	129.3	168.8	149.5
Finance companies	97.8	139.8	93.0	111.3*	107.2
Utility operating companies	396.3	136.4	112.0	132.6	127.9
Agricultural machinery	194.1	177.1	128.8	160.5	147.1
Telephone & telegraph	204.9	121.9	115.3	129.1	128.2
Sugar	165.7	144.0	119.5	148.6	131.8
Tobacco products	119.4	115.6	89.9	105.1	98.0
Auto parts and accessories	274.4	145.4	136.7	170.2	147.9
Electrical equipment	239.6	158.0	114.3	133.3	118.3
Automobile	210.6	146.4	137.4	166.0	139.5
Radio	1,313.7	146.3	167.2	224.1	169.9
Gold mining (U. S.)	96.8	90.1	106.8	75.2
					16.4†

*—Exceeded 1929 high. †—Decline.



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THE STATE OF MISSOURI

In The Heart of America

THE TREND

V-J DAY + 1 YEAR; ATLANTIC CHARTER + 5

We thought that it would be helpful to celebrate the first anniversary of V-J Day and the fifth anniversary of the Atlantic Charter (remember it?) by telling you just what the Russians are up to. For uncertainty about their intentions is largely responsible for making this first anniversary of victory in World War II an uneasy and uncertain occasion, particularly in the international field.

• **We regret to report**, however, that we cannot tell you what the Russians are up to. It is not because we have not had the benefit of a lot of expert advice on the subject. The trouble is that the expert opinions do not jibe. On one hand, we are told that this current Russian campaign of abuse of our people and our institutions is really a manifestation of internal weakness, the sort of swagger that a fellow who is really pretty punch drunk sometimes affects. On the other hand, authorities whose credentials also look good tell us that the Russians feel they have a superior international strength at the present time (largely because of our appearance of weakness) and intend to push it to the limit to get what they want.

Other explanations take us into what those advancing them eruditely call the dynamic of Communism in Russia. One idea here is that the only way the Russians can make Communism in Russia work and its succession of rigorous five-year plans operate is to have the aid of an international capitalist conspiracy against Russia to excite and inspire the people. In the terms of this explanation, the Russian press is primarily engaged at present in dressing up the capitalist bogey man to frighten not us but Mother Russia's children. While some of the more facile experts can take all of these explanations, and more, and weave them into a slightly consistent whole, what the effort really demonstrates is our lack of reliable knowledge of Russia's intentions.

• **This might be** because the Russians are so successfully secretive or it might be because their leaders are not too clear themselves about what they are up to. There has been so much emphasis on the iron curtain that there is a strong tendency in the United States to accept the first conclusion as a matter of course. The tendency is strengthened by the predilection of our home-grown Communists for ducking around in dark corners.

We would not dismiss lightly, however, the possibility that the Russian leaders themselves do not know precisely what they are trying to do. This, to be sure, runs counter to a widespread American belief that the leaders of the U.S.S.R. are extremely smart and farseeing fellows. However, to entertain the possibility that these leaders are not brilliantly perceptive does no violence to their historical record.

Bewilderment about what the Russians are up to

would be worrisome and embarrassing under any circumstances, but under the circumstances at present prevailing it is positively nerve-wracking. If we had stuck to the principles set down in the Atlantic Charter, we would at least have known in a general way where we were trying to go. We would have known, for example, that we were set against any territorial changes in this post-war world which are not in accord "with the freely expressed wishes of the people concerned."

• **In order to hold** the war allies together, however, Churchill and Roosevelt kicked overboard the Atlantic Charter which they had so proudly proclaimed and went into a sort of political partnership with the U.S.S.R. which promptly cut the principles of the charter to ribbons. Whether, in the light of the total situation in which they made their decision, it was wise, is a question which we shall probably have to wait a century or two for the historians to decide on the basis of all of the evidence, much of which still remains hidden. It is entirely clear on the first anniversary of V-J Day, however, that the decision set up a partnership which lacks the first element of success for that kind of an operation: mutual trust and understanding.

Perhaps primarily because of the absence of any basis of understanding on which to operate as a partnership, our national representatives at international powwows with the Russians seem to have been turning increasingly to principles for guidance, some of them principles which were set forth in the Atlantic Charter and then kicked around. For the long pull this drift may be in the right direction, but for the present must make it about as hard for the Russians to understand what we are up to as vice versa. For example, first we and the British agree to a deal which pushes the Polish border all over the place and launches one of the most devastating mass migrations in history, and the next time something of the same general sort comes up we say it's against our principles. To which the Russians might reply, "Please let us know on what days your principles operate so that we can know on what days we can make a practical deal."

• **We could very well afford** to give them a very precise answer to this question if they, in return, would tell us what they are really up to in general internationally, and what they are up to specifically in giving us such a lambasting as they are currently. In the spirit which should animate the first anniversary celebration of victorious allies but does not, we might lead off by asking our question in the Gilbert and Sullivan manner, "It is all very well to dissemble your love, but why did you kick me downstairs?" The answer holds the key to the possibility of having a better second anniversary of V-J Day than this confused and befuddled first.

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"Kids really watch their step in this town ... they teach 'em traffic safety in school!"

And America's traffic accident rate would nose-dive if grown-ups took half as much care!

AMERICANS are being killed and injured in street and highway accidents right now considerably faster than our armed forces sustained casualties in World War II. Obviously, the danger in the battle zones was incomparably greater—yet it's easily possible that this year may see as high as 180 traffic casualties every hour here at home against a rate of 32 casualties an hour at the fighting fronts!

A gloomy picture with one bright spot
There's one bright spot in this otherwise distressing panorama of our most motorized nation in the world. During a period when fatal accidents among persons of all ages went up 114 per cent, the rate among children from 5 to 14 decreased 9 per cent.

This record spotlights the value of the excellent safety education pro-

grams in many of our U. S. schools.

Why can't all of us be equally careful?

To keep the accident rate down, there's much that can be accomplished by more highways that are specially engineered for safety.

More stringent traffic laws, where needed, help too—and "community pride" campaigns, of course.

But it's important to realize that most traffic accidents don't just happen—they're usually caused by someone. A motor vehicle driver—or a pedestrian—slips up and gets careless . . . new casualties go on the record books!

Driving is no job to take lightly

The average motor vehicle driver wouldn't think of trying to pilot an airplane without training. Yet plenty of people confidently take cars and trucks out on the streets

and highways who might have trouble passing a driving competency test.

In fact, the unskilled and irresponsible driver may well be the most serious of all menaces to traffic safety. Nationwide action is being advocated to make driver licensing more thorough and strict.

As one of the pioneers in building and working for increased traffic safety, Studebaker is convinced that the exercise of common-sense and self-discipline—by pedestrians as well as motorists—can help substantially in reducing the toll of highway injuries and deaths.

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INTO
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